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WESTERN ARTS ASSOCIATION BULLETIN

A RECORD OF THE
CONVENTION AT
COLUMBUS, OHIO
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REPORT OF THE
1933 CONVENTION
AT COLUMBUS, OHIO



HARRY E. WOOD, Secretary
5215 College Avenue Indianapolis, Ind.
DECEMBER 1, 1933

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1932 ~ 1933

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THE PRIMACY OF THE ARTS

WHAT IS PRIMACY? Consider the keynote of 1933 in its relation to the work of our Association, particularly as revealed in the current *Proceedings*. Nothing is without *Art*. And, *Industry*, as well as the *Home*, is so integral a part of present-day life that all three are "Primary," while the more academic phases of education obviously become secondary. It was with such a pronouncement as this that we approached everyone interested in the Columbus convention with our advance literature.

ART IS A NECESSITY. The EASTERN ARTS ASSOCIATION chose this as its keynote, adding the phrases that Art is a necessity to the individual, to the home, and to the nation. It has occurred to us that our *Proceedings* might well be judged on these three points used as professional criteria. Are the various addresses which occur throughout the pages of this volume valid examples of the various Arts as essentials to the individual, the home, and the nation?

ASSOCIATION PLANNING FOR THE FUTURE. A new age, new conditions, and resulting new problems all require a continual scrutiny and re-evaluation of old procedures. Much in the present *Proceedings* will bear close and continuous inspection. We sincerely trust that everyone fortunate enough to secure a copy will prize it as highly as we do. But, none of us can afford to let our interests stop there. It is imperative in these times that we unite in an effort to cope wisely with what lies in the future.

GENERAL SESSIONS

I. THE ADMINISTRATIVE VIEWPOINT

THE ADMINISTRATIVE VIEW

PAUL C. STETSON

*Superintendent of Schools, Indianapolis, President Department of
Superintendence, N. E. A.*

From the administrative standpoint the position of Fine and Industrial Arts is very precarious because administrators, all over the country, are having their budget estimates manhandled to such an extent that they are unrecognizable when finally approved.

The Fine and Industrial Arts are the subjects most under attack. Some of the reasons for this situation are these: Fine and Industrial Arts are, in the popular mind at least, still considered as additions to the curricula. Boards of education and many administrators have not yet accepted them as integral parts of a uniform school program. They constitute, in the minds of many, the "fads and frills" of education. Consequently, when boards and superintendents are sorely beset to make the budget balance they eliminate subjects which, unfortunately, have little, if any, organized defense. A correlative reason for the attack on the arts is that we have not yet departed from the "three R's" concept of education. In spite of all of our lecturing, our books, our teacher-training schools, reading schools, institutes, and what not, "education" to most people is academic. It proceeds from the reading of books, not from the doing of things. There is no other educational idea which is quite so firmly fixed in the minds of most of our people. Many superintendents accept the arts on sufferance and with considerable reservation. Consequently, they are but half-heartedly defending these important and essential subjects. Another reason for the attack is that superintendents and various directors of the arts have failed to convince boards of education and the general public of the important place in a modern school system of the activities represented by the arts. However good our intentions may have been, our salesmanship has fallen down badly. Knowing that we were right, we have proceeded on the mistaken idea that truth will prevail without assistance. Such an assumption is very dangerous. Truth will prevail, but judicious and timely publicity makes such assurance doubly sure.

The national situation with respect to public education is very grave. Schools by the thousands are closed, many of them not to reopen in the fall. It is estimated that two hundred thousand children are being denied their educational birthright and that thousands of teachers are and will be unemployed. In many communities funds are not sufficient to pay the teachers. In other communities funds will not be sufficient to pay teachers a living wage for more than two or three:

months of next year. The Joint Commission on the Emergency in Education created by the NATIONAL EDUCATION ASSOCIATION and the Department of Superintendence, has placed before the country startling facts in regard to a threatened collapse of our public educational machinery.

In the face of these emergencies, what should be the attitude of administrators with respect to a program of Fine Arts? In the first place, I believe that the Fine Arts program should come into court with clean hands. It should show definitely and clearly that whatever extravagances, both as to the scope of work and the money spent, which have crept into the arts curricula are definitely and finally eliminated. There is no reason, for example, why we should longer insist upon smaller classes for the arts than for any other subject. Directors and administrators should make sure that the programs of the city are so correlated and articulated that there is no waste whatever in the number of teachers assigned, the number of vacant periods, or in the time of the instructors. In the second place, administrators and directors should revise completely their offerings with respect to the Fine Arts to make sure that the program offered articulates with the general school program. We must be sure that the claim set up for the arts is substantiated in fact. After the experience we have had it should be a relatively easy thing to determine which activities have real and lasting value and which do not. In the third place great care should be taken in the use of all types of supplies. All of the courses of study should be devised to the end that a minimum amount of money shall be expended in the purchasing of essential supplies.

The fourth point is, of course, the most important and the most difficult. It is impossible to conceive of a modern school system which does not stress a broad social point of view. Such a school system must include, as an essential part of its program, Fine and Industrial Arts. To eliminate these subjects is to throw the school system of America back at least forty years. We cannot train the present generation of school children for active and intelligent participation in community and national life on a program of education which we had in 1890. Not because we are jealous of our prerogatives nor because we want to resist all attacks upon our school budgets nor because we do not recognize the desperate plight of education in America and the great sacrifices which the majority of our population have and are making with respect to their incomes, should we oppose the elimination of the arts or any other course from our curricula. We should oppose it simply because they are an integral, vital and essential part of the educational equipment of every child. We should oppose such retrenchment because we firmly believe that any adequate education for our children is impossible without training in the Fine and Industrial Arts.

We should place our defense of the arts in a modern school program upon the broad grounds of the intellectual and social welfare of our school children. Upon this basis administrators are justified in fighting to retain appropriations in the budget for these important activities.

A SOCIAL-ECONOMIC VIEW OF THE ARTS

GEORGE F. ZOOK

United States Commissioner of Education

A short time ago I read a paper to the members of another educational association in which I stressed several high-sounding principles as emphatically as possible. In the course of the proceedings of this Association it was also necessary for me as an officer of the Association to join with others in evaluating the quality of work performed by a certain college which was seeking to be accredited. After rather lengthy consideration the institution was not admitted to the list of accredited institutions. Following the session, the president of the college reproachfully informed me that in his opinion the action of the Association relative to his college did not conform very closely to the high-sounding principles which I had enunciated so vigorously.

This is the kind of a predicament that any administrator is likely to find himself in. I suspect that all those who are on the program this afternoon are in considerable danger of enlarging on the significance of the arts in the scheme of education to the point where it would be decidedly embarrassing to carry out the principles announced to the satisfaction of all of you. Certainly the social-economic implications of the arts reach down into the very vitals of our civilization so far that were anyone to set them forth adequately, it would be most embarrassing to have full responsibility for instituting a plan of education which would secure satisfactory results. Fortunately the ways which may be used for the development of individuals for this full life is left to others on this program.

Social desires and aspirations are realities to the same degree of certainty as anything in the physical world. The fact that they vary in intensity and form at different stages of evolution or under different circumstances should not prevent us from realizing their persistent reality.

I believe that the aspiration to live in the midst of and in harmony with useful and beautiful things is as deeply rooted in the nature of human beings as any of the social desires. Men and women yearn for the things which are beautiful and satisfying to the spirit just as much as they do for the things that minister only to their physical necessities. In discussing the social-economic function of the arts in modern life we should therefore remember that we are dealing with a

human aspiration that will manifest itself in various forms so long as men and women are to any extent made in the image of God.

All nature round about us also constantly teaches us these lessons. Everything in nature has its uses if only we can discover what they are. Everything in nature is beautiful if only we put ourselves in tune. 'Tis only man acting on the low animal plane that misuses things and mars the harmony of his surroundings. Our problem is therefore to use the natural aspirations for the useful and beautiful as a basis on which to build and to guide boys and girls, young men and young women into that fullest appreciation of life's expressions which comes from contact with them in their most pleasing manifestations.

It is, of course, unnecessary for me to prove this statement to a group of this kind. Nevertheless I had it brought home to me recently in a most convincing way. In Akron, as elsewhere, we are struggling with the problem of poor relief. Among the families which have been almost entirely supported by charity for more than two years is that of a certain widow of foreign birth and her family of five children. At times the plight of this poor woman has been almost desperate. Needless to say, the neighborhood is run down. In the house there are only the barest necessities in the way of furniture except that somehow an old victrola has escaped the second-hand store. Recently a friend, thinking that she would provide a little in the way of variety in the weekly supply of food from the Family Service Society gave this woman two dollars. The widow didn't spend it for anything for a couple of days and seemed to be in a more thoughtful mood than usual. Then one day she put on her coat and hat, walked two miles down town, straight to a music store where she spent the entire amount for a fine phonograph record. Returning, she put it on the victrola and played it for herself and her family over and over again. For a few short moments she lived in another world. Those of you who wish to chide this poor woman for her lack of good judgment and common sense may do so. I cannot find it in my heart to do so.

There is a second chapter to this incident. I told this story a few days ago to a newspaper reporter. Can you think of a more hard-boiled, blase individual than a newspaper reporter? Before I had finished, his eyes began to sparkle and in a voice a bit husky he related how, as a young man, instead of saving his money for a college education, he spent it as soon as he received it for one classical phonograph record after another with the result that he never finished a college education. Nevertheless he had some real satisfaction in life. You can match these incidents with others equally if not more striking. And they show without question how ardently we yearn for a little beauty as a part of what may otherwise be a very drab physical life.

The opportunity to work at some useful occupation is a prerequisite to the sustenance of physical life itself. We call this aspect of life

a vocation and quite properly we are now laying great emphasis on the training that is necessary for success in any of them. But we are now learning better than ever before that a man's vocation has values for him that far exceed the mere satisfaction of his physical wants. The absence of the opportunity for useful work takes away a man's self-respect. It pauperizes not only his body but his spirit and makes out of him a mere creature of circumstance. We cannot have a really satisfied and contented citizenry in this country until all men and women have the opportunity to secure the satisfactions that come from the pursuit of some useful and gainful occupation.

Moreover, such a gainful vocation must be afforded under circumstances that appeal to the higher instincts of men and women. There are many reasons for the industrial difficulties of the modern age but among them is the fact that the surroundings of a factory are often ugly. The interior is dirty and distasteful. A man seems to be a cog in a machine. Relations among the workers may be unfriendly. In the mind of employers and employees alike the symbol of the factory may be the dollar mark.

Before a man can be content he needs to have the feeling that his particular contribution is necessary to the success of the entire product, that he is working for the welfare of himself and all of his associates and that the product helps to make the lives of his fellow citizens directly or indirectly more comfortable and pleasant than otherwise they would be.

I am not here attempting to point out the way in which this goal may be reached but I am endeavoring to make it clear that the conditions under which a man pursues his vocation account in no small degree for the attitude which he develops toward the society of which he is a constituent part. Until we can improve these conditions, it will be difficult to develop citizens with a proper attitude toward the arts and the social contentment which grows out of an appreciation of them.

Let us take some examples relative to the implications of the arts and social life. We have always thought of the family as being the basic unit in society. I am sure that you will agree that, particularly in these distressing times, there is real cause for apprehension concerning the stability of the family. Divorce is on the increase, the birth rate is falling, the employment of women in industry and the professions is growing, children no longer have the numerous home duties of former days, millions of men are out of work. These and many other forces are affecting the stability and integrity of family life. While we must expect certain adaptations in family life to changing economic conditions, I can think of no social tragedy of such far reaching significance as the possible dissolution of the family. Such a problem should engage our most serious attention.

The home as such is in competition with a thousand other tempting interests. But fortunately there is a great variety of natural family interests awaiting capitalization. These lie very largely in the field of the arts. Through them I verily believe we must and can make the home and family life more attractive than some of the less worthy interests that beset us today.

By way of contrast may I point out the obvious difference between the ugly lines of the old coal stove as compared to the colorful gas range of today; between the hampers of fruit on the dining room walls yesterday as against the quiet flowers which now adorn them; between those expressionless crayon portraits of your ancestors and the photographers' art today; between a musty parlor of the long ago and a cheerful solarium of the present day. It is true that all these and other evidences of artistic selection in the home do not guarantee a happy family but it seems to me that the increasing development of homes in good taste is one of the most powerful incentives toward a wholesome family life.

Perhaps we can take another illustration of powerful influence on social trends. I refer to the present active movement toward public parks as recreation centers. With comparatively small cost the rangers, foresters and landscape artists have made them surprisingly attractive. In the summer time they are visited by thousands and thousands of men, women and little children who breathe the fresh air, enjoy the natural scenery, gaze into the depths of a delicate wild flower or contemplate the sturdy oak as a reassuring symbol of life. No one has yet found an objective measure of the influence which these public playgrounds exert but no one doubts how much courage, faith and optimism they add to human character.

May I repeat, therefore, that social life is today encountering menacing dangers. Food, clothing and shelter, on the utilitarian basis alone, will not solve our problems. Men and women want them but they want them in attractive and pleasing forms. An appreciation of the arts in all their great variety is a matter of continued education. The frills are indeed the very basis of a happy civilization.

I have referred to the fact that there is a natural desire on the part of individuals to secure the necessities of life in pleasing form. This fact has extremely important implications in our economic life. The necessities of life come in many pleasing forms. The designers of automobiles, buildings, clothes and furniture are constantly and keenly attempting to find some new and more attractive form of their product. The durability of many of the things we use today is so great that we do not wear them out. We gradually get tired of the old style and want a change for the new and more attractive. This trait of human character is now counted on heavily throughout the industrial and commercial world. Indeed it is often said that some new and more

attractive industrial product would do more than anything else to pull us out of the present depression. In any case the desire for a change in the form of industrial products is one of the main causes for keeping the wheels of industry going with the consequent employment of labor.

Our economic problems are increasing so rapidly these days that they threaten to overpower us. We are giants in the production of goods and pygmies in their distribution. With mountains of raw materials we do not know how to keep our population employed and fed. We have not adjusted the relations between the employer and employee. Our entire economic system is indeed on trial.

What is there to do about it all? We are a democracy and we assume that the people themselves will ultimately be responsible for working out solutions to our economic problems. If this is the case there must be popular knowledge concerning the processes that result in the beautiful chinaware in your home, the nobby car in which you fly about, the intriguing book on your parlor table, and the attractive gown in your closet. Back of the china one should be able to see the potter and the glazer; back of the car should loom the steel worker and the designer; back of each book one should be able to discern the woodsman and the printer; beyond the gown are the clerk and the weaver. From a knowledge of the processes of industry secured through direct participation, study and observation, we gain an appreciation of the conditions under which men produce the attractive conveniences of modern life which alone will enable us to formulate that intelligent public opinion necessary to the solution of all social problems.

We are all engaged in performing some small part of a task to the completion of which many others also contribute. Every industrial organization round about is us made up of a large number of individuals each of whom has a special task to perform. One cannot contemplate any of the industries for one moment today without being deeply impressed with the interdependence of each factor on all of the others. A short time ago production in one of the branches in a great automobile plant suddenly broke down with the result that every wheel and every pulley in a hundred other branches of that great plant stopped almost immediately.

There is in this situation a great social lesson which we understand better today than ever before. Our whole society is made up of citizens as component units. What each fails to do affects not only himself but all of his fellow citizens. Lack of opportunity for a man to engage in useful work not only pauperizes himself but all others as well.

I believe, therefore, that the social-economic implications growing out of widespread knowledge and appreciation of the arts are of the most far reaching significance. We are entering an era when men and

women insist that the everyday conveniences in life shall not only be useful but pleasing, when an appreciation of the processes and conditions under which all our conveniences are produced will enable us to understand better the economic problems involved, and when all these factors may be combined to give us that deep sense of interdependence on one another that results in a nation of happy and contented citizens.

HOW ESSENTIAL ARE THE ARTS IN THE PUBLIC SCHOOLS?

CHARLES H. LAKE

Superintendent of Schools, Cleveland

The changes which have come in education so recently are mainly the result of social-economic changes. If we are to determine the place and value of any subject in our curriculum, we must consider the validity of the reasons for education in the light of present-day social conceptions.

We are particularly interested in the development of the individual but primarily from the standpoint of what he may mean to society as a whole, or, in other words, to the state. We are interested in the individual's achievement primarily because of what he may contribute to a highly organized society of which he is a part.

To enter into such a society effectively we have come to understand that the individual must work with those activities and materials which bring to him a maximum of satisfaction and which will develop his abilities to the point where they may be of value to society. This does not need to mean that he will have no selection to make in subject matter, but rather that from a wide range of material he may make selections in line with his particular abilities and desires. We cannot afford to spend as much as we have been spending on the development of abilities which at best will be mediocre and for which society may have little use. The individual will have ample opportunity to exercise initiative, to develop originality, to follow his interests, to attain excellence, to strive for beauty, to develop the power of thinking and selective judgment, and to contribute widely to the enrichment of life but always with the social good in mind.

We have come to the end of an era and just now we seem to be waiting expectantly for some unusual change of scene in this drama that we call life. We are just a little tense with all of this waiting. We are not quite sure what to expect but we know that change is inevitable; that there have been many conditions in our old system which cannot exist in the new system; that banks cannot fail and wipe out the savings and the purchasing power of millions of people; that people are not going to starve; that there is enough for all; that we shall not fight to maintain a system which proves itself inadequate

in times of stress; and that we shall in time develop sound faiths which carry conviction with them and bring lasting satisfactions.

The present crisis has accentuated very much the restlessness of all of us concerning conditions in the world, but particularly is this so with our young people. These are the people with whom education has to deal. Individualism is losing ground to the idea that it is the state that is to have first consideration. If this tendency continues there are many things that we shall lose and there are many changes that will have to be made in our educational system. The necessity of earning and saving for the members of the family has been one of the strongest incentives toward the development of family life. I cannot believe that the individual will reach his maximum development if it is impressed on him that his importance is limited to his service to the state, if there is taken away from him the incentive to strive for the betterment of his children. There must be some way of finding some position between our old capitalistic system and communal government, which is sound socially and economically, which will not limit too much the achievement of the individual, and which will produce a society that may maintain itself.

Are we convinced that the welfare of society depends upon taking thought? I venture the assertion that we are not. In a democracy so often it is numbers that really count. There is little doubt that we can have a pretty good sort of government through the old aristocratic form of rule, but it varies with those who administer it and with the times. Those of us who have been working with a democratic form of education cannot subscribe to this older aristocratic form. We just must believe in the possibility of raising the standard of intelligence so that it will prefer good to bad, have some ideas of relative values, and exercise judgment with regard to the things that are important in a democracy.

What is it, after all, that we are after? I suppose in some sort of vague way we all want a fair chance at happiness. If we go to war, if we invest our money, if we work, we are attempting to find a greater amount of happiness than we otherwise would have. Our educational system is based upon that belief. But evidently we do not know what is best suited to produce this state of mind. We no sooner act in a certain way than we change and wonder whether we should not have been more happy had we pursued a different course of action.

Our educational system has not been preeminently successful in making us happy. We have been quite smug in our assurance at times that it was the best system of education in the world. We have stressed the rights of the individual without much emphasis on the limits of those rights. Individualism in thrift and saving produces many poverty-stricken people. Individualism in banking practice produces many bank failures with attendant distressing circumstances. Individualism fills

our jails, but it also fills the president's chair, the mayor's office, and gives us literature, art and music, and countless things we would not relinquish. Our trouble has been that we have worshipped individualism to the extent that we have for the moment lost sight of the rights of the individual with respect to his fellowmen. We are distressed at suffering, we want equality of opportunity, we dislike inconvenience, we hate racketeering, but we have no particular faiths for which we will fight very hard.

There is much to be hoped for from youth. Youth is buoyant and hopeful. Youth has a wonderful resistance to disagreeable conditions, to poverty and discomfort, and it is from youth that we derive our greatest hopes in this eternal quest for the real things of life.

Recently we have conducted some studies in several of the Cleveland high schools to find out, if possible, what subjects taught in these schools, were rated highest by the graduates of the schools. The research was conducted by a questionnaire sent to those graduates of the past ten years. Without exception the subject that was given the highest rating was English. This is to be expected. In the commercial school the next subjects in the rating were all commercial subjects. These pupils had selected the commercial school for a definite purpose and it is quite to be expected that they should name those commercial subjects as the ones which they thought had helped them most in the work that they were doing. It seems to me, however, that it is to be regretted that Art in some form should not have appeared in the first ten of those subjects which they deemed to have influenced their success. In the academic school the case for Art is much better. In the list of those subjects which had helped them in their business life, the girls ranked English 1, typing 2, art 3, American history 4, algebra 5, civics 6, journalism 7, stenography 8, Latin 9, French 10. The boys did not rate Art in the first ten of those subjects which had helped them most. In answer to the question "What subjects would you advise your brothers and sisters to take should they enter this school?", the girls placed Applied Art fourth and the boys did not place it in the first ten subjects.

Of course, such evidence relating to the value of subjects is by no means conclusive. It may be that a particular subject has had little stress in a particular school; it may be that the teaching has been deficient, it may be that the course as planned by the administrative officers of the school left little or no place for the subject; it may be that the guidance of the pupils was definitely away from the subject so that there was no way for the pupil to know what it offered.

As in the past, there will have to be much indoctrination and some imposition in our education of the future. Still I doubt if any subject in our curricula can succeed as well as it should succeed under a spirit of coercion and imposition. This is especially true of the fine

arts and of all creative processes. One cannot be forced to produce or to love beauty. Powers of appreciation and of creative effort develop from within the individual and are the result of freedom to choose and to experiment with those materials which may yield beauty.

Human life and human conduct always have been influenced by considerations of beauty. As our civilization becomes more complex this is increasingly true. Art and beauty touch the individual in every phase of his life—in his home, in his social life, in his work. It may be expressed in painting, in music, in architecture, in landscaping, in advertising, in the craftsmanship of the things he uses, in the lighting in his home, and in many other ways.

Recently I was standing at the window studying the designs of the new motor cars. There were many that I thought beautiful but there were still some that I thought very ugly. Those with the long sweeping false radiator fronts do not appeal to me. They are false from the standpoint of utility and art. They are like the sheet metal cornices on some of our cheaper buildings. I realize, however, that I am discussing taste and that it varies widely with individuals and that some may like the automobiles which I dislike. If they do, they should buy them. However, it seems to me that we may combine utility and beauty in our homes, in our automobiles, in our furniture, in our clothes and in other things that we must use so much of the time. Permit me to ask some questions.

What place has the arts in our school system?

In what ways do the arts contribute to the worth-while objectives in education?

What is it that the arts can do in education that cannot be done as well or better by some other subject?

What is it that the arts give me that I would not do without?

What has been the reason for the increased attention to the arts in recent years?

Have we adequate knowledge as to what we should teach in the arts and to whom we should teach it?

Should the arts receive more attention in our schools than they now receive?

Just where does the law of diminishing returns begin to apply to the study of the arts in our schools?

Why is it that we have more supervision in the arts than we do in some other fields of school work? Do we need this supervision?

Is there an adequate supply of well-trained teachers of art?

These questions all seem to be pertinent at this time.

Most school administrators are interested in the problem of relative educational values. Strong advocates for particular subjects are the ones who are most likely to discover the means for evaluating the

work of their particular fields. The educational administrator needs much help. He isn't at all certain that the "frills" of yesterday are not the most worth-while subjects of today. His educational philosophy may be undergoing radical changes. He must be alert if he is to know the answers to the questions arising over educational values. It takes time and a great deal of work to establish valid reasons for this or that element in the curriculum. With whom does the responsibility lie for the arts or for any subject in the curriculum? Of course, it must lie with the teacher. Almost any subject will secure recognition from the forces in control of education, if it is taught well.

How has our course of study in the arts changed in the past ten years? What has brought about this change? Our theorizing on curriculum problems must be checked and strengthened by research and practice. It must involve differentiation based upon the potentialities of those who are to learn. Such questions as these inevitably follow: For what is the subject good? For whom is it valuable? How much can the individual take? The changes in the arts courses have come slowly. Gradually we have come to know that creative ability and appreciation in the arts cannot be developed by copying the work of others. This procedure may develop certain techniques and mechanical skills but has little to do with the development of a real art sense and becomes stultifying if not associated with creative achievement and the development of appreciation. Our art courses today have purpose in terms of living values. They bring enjoyment to the learner through the development of an appreciative understanding of form, texture, color, and composition in the things about us.

Our courses in art must recognize that there are some who have the ability to create art products and that there are many others who have only the ability to appreciate art qualities in materials about them. The first group is relatively small, but nearly every one has the ability to appreciate beauty. In the elementary field the art work should be mainly for purposes of developing this almost universal ability of appreciation. In the later years there should be more and more opportunity for the development of creative ability.

There is almost no limit to the source of art materials for courses in our schools. There is the whole field of nature, clothing, dwellings, furnishings, decoration, machines, equipment, printing, home surroundings, play spaces and the parks. Nearly every item of our environment presents art questions from both the standpoint of creation and appreciation.

Advertising is much more artistic than it was a few years ago and it has a great influence on our living habits. It influences our social habits, our eating habits, our dress, and our work. It attempts to create desires generally through an appeal to our aesthetic natures. However, this is not true of all advertising, for some of it makes a definite appeal

to our fears. We see the car that skidded into a bad wreck because it did not have the right kind of tire chains; the family left destitute because there was no life insurance; the social outcast who did not use the right kind of soap. It may all be good art but the appeal is not as pleasing as that which is based on other more pleasurable of our emotions.

Almost every subject in the curriculum contributes to the education of the individual in several ways. Innately we are curious. We shall always want to know what is going on. Therefore we shall be compelled to teach some facts. Many facts, however, are of importance only as they enable a few of the people of the world to reason from them to conclusions which may be of value to the world. We teach much history for this purpose. But there is another great value which we hope to get from the study of history and that is a value in appreciations and emotional reactions which strongly influence our attitudes toward life.

Art differs very little in this respect from such a subject as history. Both the emotional appeal and the intellectual appeal are strong. To be most successful, the arts must stress those fields of work which have much to do with the thoughts, the emotions and the actions of the pupils. Real appreciation will rest on a foundation of fact but it will be expressed in the lives of individuals in thousands of ways because of the varied emotional patterns of the individuals. To most of us art problems are not those of creation but of selection. We buy the manufactured products that the market offers. In many of the situations which confront us with regard to our purchases, we do have some opportunity to select. Here lies the opportunity for the expression of the art knowledge and the art feelings of the individual. Our schools should offer opportunities for training in this field in every year that the child is in school. This will include training in design, decoration, and the use and values of materials of all sorts.

Every one wants to be in "good taste." The schools should develop taste in behavior, dress and in the use of materials. In many of our high schools we have courses in "personal regimen." They are really courses in personal art and deal with the art side of behavior and the care of the individual. These courses deal directly with the problems of the individual. Their correct solution has much to do with the happiness and the social and business success of the individual. The problem of personal appearance is a problem in composition and varies with each of us. The solution of the problem involves a knowledge of the principles of design and harmony, and is of sufficient importance to warrant any attention that may be given to it in the senior high school period.

A study of the art of a people gives us a very good insight to their development. The medium through which the appeal of art is made

is through the eye but it influences the whole of the individual. All of our realized experiences form a background into which the emotional pattern expands and weaves itself to find expression later in our lives. This expression, of course, varies widely with different people. Their backgrounds vary. Their powers for the development of emotional and intellectual patterns vary and the Arts offer much opportunity for developing these powers.

When I speak of the Arts as appealing to our emotional natures I do not mean our sentimentalities. Sentimentalism is the mirage of normal emotional experiences. George Meredith gave us a delightful definition of the sentimentalists. "The sentimentalists," he says, "are those who fiddle harmonies on the strings of sensualism to the delight of a world gaping for marvels of musical execution rather than for music." We do not want sentimentalism in the Arts any more than we want it in literature. I do not suppose that we can develop any formulae for producing certain definite emotions through art. Our emotions are most complex and fluctuating. Often they do not result in any form of expression that may be understood by another individual. That does not mean that they do not exist and that they are not valuable. The situations that produce joy, sorrow, or some more fleeting emotional stimulus may produce quite a different effect tomorrow. We desire individuals in whom heart and head are well balanced but we may hardly hope that they will be evenly balanced every day.

Much attention should be paid to the selection of the materials of art so that our pupils in all grades shall have an opportunity to see and feel rhythm, harmony, and beauty. Beauty will make its own appeal. We cannot wholly eliminate it, if we try. It may be marred, it is true, by poor instruction or by too much attention to mechanical details, but, in general, it is fairly safe in any hands and cannot be destroyed wholly.

The human being is very fond of achievement. He desires to do things and express himself. He wants to experience the appreciations which others have experienced. Therefore, he shall want to study art, music, science, literature, architecture and other forms of expression. It is, also, a human characteristic that we desire others to see the things that we see, to know the things that we know, and to understand the things that we understand. To this extent we are all teachers. We can only teach the things we know. This brings us to the question, Are there enough adequately trained teachers of Art? We have been slightly handicapped in the past years because of the relatively small number of art teachers who were well trained in the subject, who knew something of the technique of teaching it, and who had an appreciation of their work as a factor in education. As with most subjects, there has been in the past too much teaching of school art by those who know very little about it. That situation has changed rapidly for the better

but I venture that there is still a shortage of good school art teachers. We want teachers of art who are teaching the subject that they most want to teach, who are striving to determine the best way of teaching it, and who are continuously preparing themselves to teach it better.

There should be more secondary schools stressing the fine and applied arts. I am a firm believer in specialization in education. We should have technical high schools, commercial high schools, academic high schools, and fine and applied arts high schools. Experience points to the conclusion that the average of the work in any special secondary school is likely to be higher than the average in the cosmopolitan high school.

I doubt whether most people have analyzed their desire for art, but they want art in their homes, in their schools, and in their daily lives. The demand is universal and there will be an increasing amount of it taught in our schools. Teachers of art should appreciate the advantageous position in which this places them and strive for a high standard of appreciation for all pupils and excellence wherever creative ability is discovered.

II. PREPARATION FOR PROFESSIONAL LEADERSHIP

PREPARING FOR LEADERSHIP IN ART EDUCATION—THE COLLEGE CURRICULUM

WILLIAM H. VARNUM

Chairman, Department of Art Education, University of Wisconsin

As a prelude to my paper I wish to present two letters:

Dear Professor Varnum:

Undoubtedly one of the worst features of the present depression is the tendency to reduce appropriations for educational purposes. This tendency is especially harmful when it is directed against the newer subjects in the curriculum. I have regretted very much the movement to eliminate or restrict teaching in the manual arts, and also in the cultural arts, like music, drawing, and painting. In my judgment these subjects, instead of being "fads and frills," are of fundamental importance in any well-rounded scheme of education. It is penny wise and pound foolish to drop them from the present public-school curriculum.

Yours respectfully,

JOHN DEWEY.

The second letter is from the Superintendent of Public Relations, Western Electric Company.

Dear Mr. Varnum:

. . . Personally I believe Art Education has a distinct place in the curriculum of high schools and colleges. Whether students enter these courses with the idea of making Art their life work is immaterial, it seems to me. The mere fact that the young man or woman devotes some time to these subjects indicates the development of an appreciation for the finer things of life, which is a permanent influence for good, whatever his or her occupation may be after leaving school.

In times such as these when every industry and business is compelled to reduce operating expenses to a minimum it is conceivable that our educational institutions should follow a similar course, *therefore it may be necessary to eliminate Art instruction temporarily*, but I sincerely hope no educator will advocate any change that will permanently set aside instruction which does so much for the cultural development of our young people.

Yours very truly,

C. W. BERGQUIST.

These are the words of an international educational authority and those of a well-known executive who believes in the cause of Art but is willing to throw it out, at least temporarily, possibly because it is new and comes in last! It is men and women of the industrial, professional, and business world, the bankers, doctors, merchants of our school boards, rather than superintendents; many of them deliberate and level-headed individuals, who hold the balance, and it is these people who have to be convinced of Art value.

Why do many people, while agreeing as to the value of the cultural subjects, cast them aside and retain the older studies? The answer is this: traditional respect for the three R's, or failure of Art to function in that community, or no adequate defense by the cultural interests.

These are the conditions—what more urgent reason have we for leaders of the future, the Haney's, Dows, and Baileys, to place Art as a perfectly functioning educational instrument in the curriculum?

It is my hope, and my thesis that perfected university training will develop these future leaders—leaders not only to place Art on a level with other subjects, but in its rightful place as above some of them, to convince the future plumbers, dentists, and doctors as to the righteousness of our cause.

GROWTH OF UNDERGRADUATE ART ACTIVITIES. Doubtless at this time and place it is unnecessary to demonstrate the value of a Fine Arts education in the college curriculum—to emphasize its ability to maintain ranking on levels comparable with those of the older and more thoroughly established disciplinary studies. But to understand the present status of the fine arts in relation to the schools and colleges of the United States, it is essential to devote a few moments to its rather erratic and sporadic early history.

Fine arts courses were placed in the curriculum by what seems to us today to have been rather unusual methods. For example, some members of a faculty—it might have been one of the professors of English, philosophy, or the classics—voluntarily organized courses in fine arts and assumed the responsibility of conducting these courses based upon their own experiences and personal interests. The professor of classics introduced a course in art history, rather formally, with the emphasis on dates and chronological sequences. Frequently these men had contacts with the American Academy at Rome, and we find courses in archaeology combined with art history. Occasionally philosophy would contribute aesthetics or art criticism. You can readily see that

the enthusiasms of these individuals started isolated courses, often times with little relation to a departmental organization or for that matter to an appropriate department. One notorious example is of a course in fine arts as a part of the offerings in the department of physics!

DEPARTMENTS OF FINE ARTS IN LIBERAL ARTS ORGANIZATIONS. In time these courses became sufficiently numerous to be grouped together in a department of Fine Arts, but the nature of the work was of the art history or aesthetics type with practically no studio or laboratory facilities. This emphasis on what we might call book information, its insistence upon the acquisition of facts, led university faculties to consider its disciplinary value as an elective on a par with such courses as English and mathematics. It will be well to keep this type of work in mind for it has had much influence on later attitudes.

INTRODUCTION OF EARLY STUDIO ACTIVITIES. Soon the leaders of art history courses felt the need of some sort of laboratory work—courses giving the students experience with color and analysis, and it came about that drawing and painting were introduced, not with the idea of stirring creative activities, but to lead to a richer sense of appreciation for the fine arts. Thus by copying the lines, masses and color of painting and sculpture, by drawing the classical figure, one could get into the spirit of the sculptor or painter. There are instances in which classical and Renaissance casts were so graded that the student moved, let us say, from the nose of David to his eye, to the ear, and by carefully graded steps to the figure of Hercules.

But how was this studio-laboratory work, actual pencil and brush manipulation, received by the professors of the older disciplines? Were they at all in sympathy with the introduction of laboratory work of this nature? When Professor Norton of Harvard proposed to the college staff the addition of a professor of drawing and painting, one of the older men remarked: "Have we come to that? Shortly we will have professors of dancing."

This is but a mild example of the distaste and distrust many old guards, exponents of the integrity of formal education, hold toward any studio or applied art activities. You can see this distrust later on extending towards the industrial arts and home economics. To them the disciplinary values of drawing and painting were not to be compared, let us say, with the natural sciences. In fairness there were many exceptions and some of the more conservative men learned to recognize the value of painting as an aid to historical research and appreciation. Modified in intensity, this distrust still persists, and for reasons, which will be developed in a later paragraph, has an apparent justification.

OBJECTIVES OF A FINE ARTS COURSE OF THE FORMAL TYPE. In colleges, art history courses at this time mainly are well organized. Summarizing objectives in the terms of a leading university professor:

The purpose of a higher education is to hand on accumulative knowledge together with the advancement of knowledge by research. The fine arts are interpreters of history and of civilization. Closely related to history and literature, also closely bound to aesthetics, design and perspective with mathematics and physics, with a close relation to music and drama, the fine arts may fairly be claimed to broaden the outlook.

This professor goes on to state that the instruction for undergraduates must differ from graduates.

The aim of the undergraduate course is to prepare for life, to give the student a knowledge of the physical world and what men have done and thought in the past. Undergraduate courses in fine arts should be largely historic, with restricted courses on the history of architecture, painting and the minor arts. Understanding and copying a great master would give the training of the eye and the hand and together with drawing and painting will lead to a fuller life.

PROFESSIONAL ART COURSES. But art is dynamic, shifting with the political, social, and economic factors of the time. Recently there has been awakened a new interest in studio work with students desiring creative and professional training in sculpture, painting and architecture. The college responds by introducing the creative studio and laboratory. So it is we find a new type of studio practice leading to an understanding of the theory and practice of art, with the objective of *creative expression*: a black sheep rarely allied with the more formal analytical copying. In these schools students are trained as professional painters, or sculptors (often competing with the products of art schools), and professional schools of architecture are now established facts. Recently there has been a tendency to combine the fine arts courses of various types into schools of fine arts with their own faculties and curricula: in other instances these professional art courses remain as separate departmental units in a liberal arts organization.

Inasmuch as our graduate curriculum must necessarily depend upon undergraduate preparation, let us examine a few facts connected with these professional courses. One prominent mid-western university offers a Bachelor of Fine Arts, requiring 120 credits for graduation, of which 110 credits may be taken in professional art courses, and 10 credits in English. Another example discloses 60 art credits with the remaining credits set up to include English, history, foreign languages, and a natural science background. It is possible to continue these examples, each showing a marked difference in its curriculum and allotted degrees, as A. B., B. F. A., B. S. and so on, with synonymous cases in music.

RECENT OPINIONS ON ORGANIZATION OF FINE ARTS COURSES. Referring to this situation, in 1927, Dean C. E. Seashore of the University of Iowa stated:

Music and art have awakened to a new period of development in this country. In this field instruction has been of the most sporadic and unorganized kind imaginable from the most elementary to the most advanced training. But with the development of music centers and art collections, and

with the stimulation in these fields we may look forward to a period of expansion and organization in art and music and for its best developments at the graduate level this demands some sort of unified organization.

Dean Chase of Harvard feels that:

Time has come to consider definitely the place of fine arts in education; the relation of the department to larger established departments and problems of graduate and undergraduate work. It is impossible that a fixed program can ever be agreed upon by experts. The subject does not lend itself readily to a series of courses of progressive difficulty. It may be years before anything like any developments will lead to a general agreement. Nevertheless, agreements on certain points are possible.

UNDERGRADUATE COURSES IN ART EDUCATION. Some of us who have spent our lives in the field of art education do not subscribe to this statement, at least in its entirety and for this reason. Out of the complex situation with its many types of courses has emerged a comparatively new undergraduate curriculum, that of *Art Education*, in which organization and sequence is beginning to show conformity. The term art education usually connotes a set-up for the training of teachers or supervisors of art on various school levels, although occasionally one finds professional painters and sculptors emerging from these courses. In its present set-up of undergraduate and graduate activities, these departments of art education are of recent growth, created to function in direct response to the demand from certain school authorities for better and college trained teachers and leaders of art with a breadth of academic training; in emergencies, capable of conducting courses other than art. This type of individual has greater possibilities than the average student with the typical non-college trained background. Moreover, authorities in the larger cities are demanding art teachers with master's degrees. Teachers' agencies are advancing higher education requirements as indicated by the following quotation:

Also, we would suggest that if you have men and women who are taking advanced degrees and who are expecting to teach, that you furnish us with the names and addresses of those who give promise of success. . . . Then, too, a great many high schools are calling for men with advanced degrees.

This movement has increased rapidly, giving a major justification for university or college allocation for the art education set-up.

The normal home of an Art Education course is in the school or college of education. The average school of education faculty is well disposed toward art education and it is thus that the antagonisms of the defenders of older disciplines are lessened by placing art education in a separate college and consequently in a more congenial atmosphere. That better organization is under way, particularly in departments of art education seems to be supported by the following facts—I find that in evaluating credits from other institutions there is a growing tendency toward course conformity and sequence, particularly in accredited institutions and of consequently high rating.

OBJECTIVES FOR UNDERGRADUATE COURSES IN ART EDUCATION. A common set-up for an undergraduate course in art education seems to follow these points:

1. Wide knowledge of the major subject, including necessary skills such as drawing, painting, and design. Naturally this includes administrative and teaching knowledge.
2. Knowledge of related fields such as appreciation, criticism, history.
3. Blocks of informatory and cultural material, as follows: English, history or foreign languages, natural science, and education, both general and as they are related to the major subject.

Again, credit distribution is subject to variation but it seemed that around half the credits necessary for graduation should be located in points 1 and 2, knowledge of art education and its related field. This is due to a feeling that a teacher of drawing and painting should be able to meet the challenge of junior and senior high school pupils, by her ability to demonstrate her art—briefly, she must be able to draw and paint. But this question arises: Suppose these people desire to continue past the first degree. How is one to be sure that a candidate for the master's degree is proficient in points 1 and 2. I say this with all seriousness, for standards of attainment in the art field vary to a remarkable degree. It is suggested that the method growing in favor in colleges and universities, the comprehensive examination covering art and its related fields, be applied in doubtful cases. This would be a means of eliminating the unfit candidate for the master's degree. Point 3, informatory and cultural materials, are more fully organized and may be evaluated upon the usual transcript basis.

THE SOCIAL SCIENCES AND ART. The undergraduate natural science requirements usually are chemistry, mathematics, biology or physics. This, the academic set-up for protecting the A. B., has withstood many attacks made upon its ability to function as an aid to art. The time will soon come when a study much more closely associated with art than is the case with the natural sciences, namely, the social sciences, will replace natural science as informatory background requirement for a course in art education. Leadership in art education suggests a social rather than natural science background. Before we leave the undergraduate picture, let me comment on the degree of Bachelor of Science, which custom has been allotted to professional teacher-training courses. This degree seems to be a misnomer. It is like giving Lindberg an honorary degree of Doctor of Philosophy. In the future it may be that some degree similar to the Bachelor of Arts in art education, followed by the Master of Arts in Art Education, may be acceptable to college administrative and art authorities.

Summarizing the undergraduate activities with two objectives,

I advance (1) knowledge of skills in major subject and fields related to that subject, and (2) a cultural and factual background.

GRADUATE SERVICE AND THE GRADUATE OBJECTIVE. A picture of the undergraduate activities has now been presented and a foundation established for the advance into the master's field in art education. In a recent rather limited survey, graduates engaged in advanced residence study in schools of education, or taking summer courses, were asked what service was desired from graduate courses. While these replies pertain directly to education, their summation by Professor Suhrie of New York University will prove illuminating to those of us interested in art education. These demands were summarized as follows: (1) More opportunities for advanced study general in character, (2) more opportunity to get a general survey of policies and practices in teacher training institutions, (3) more opportunity to take "practical courses offering material which can be taken home and used," (4) more opportunity to see demonstrations of good teaching . . . and to see how the observation schools are actually used for laboratory purposes, also opportunities to "debate" the values of such procedure, (5) more opportunity to get personal response or actual experiences of successful teachers and officers of teachers colleges. Two additional field and extension services are omitted.

Analyzing these demands, their desires are for actualities rather than abstractions. They wish to see someone perform, watch the performance and discuss the show. Again, there is a little call from the field for fixed curricula or building high fences about intensive professional interest, little interest in research, and little desire to survey or forecast future demands in the art field. Would it not seem that many of the requests developed by the survey should be covered by thorough undergraduate preparation; others can be introduced into the master's program.

The one essential for the art education master as a possible leader is the exact acquisition of POWER, power for individual work, the spirit of research, training in those qualities which make for leadership in the field of art education. Thus we have added to our two undergraduate objective of *knowledge* and *skills* the third, *power* to analyze the present situation and to forecast future possibilities. Never before has the cause of art education needed its leaders so badly.

REQUIREMENTS FOR A MASTER'S DEGREE IN ART EDUCATION. We must divide the approach to the master's degree into two parts: (1) what one must do to be *accepted* for the master's degree, and (2) the work to be covered before a candidate can be *recommended* for a master's degree.

A graduate student may enroll in the graduate school, but this does not mean that he is accepted as a candidate. Before this acceptance becomes possible to him, he should fulfill four requirements, as fol-

lows: he must (1) either submit an acceptable block of credits both in art and non-art subjects similar to the brief set-up indicated for undergraduates in art education, or must pass a preliminary comprehensive examination covering knowledge of theory and technique of art and its related subjects, plus a satisfactory accepted group of academic credits; (2) have done satisfactory work on the graduate level for one quarter, or for one-half of one semester; (3) have presented an acceptable program approved by his major professor; (4) have presented an acceptable subject for a thesis.

The candidate is recommended for a master's degree when he has been (1) regularly accepted as a candidate for the master's degree, (2) done satisfactory work on the "B" level, (3) presented his thesis, (4) passed his oral or final examinations, (5) completed his work towards the master's degree within a reasonable period, (6) shown qualities in the art field indicating a strong teacher and possibly a capable leader.

PROGRAM. What is the average program as to credits and length? In time we will reach the point where *progress and achievement* will mean more than credits but at the present time and as we are bound by custom to semester credits, let us say that in many institutions these range from 18 to 30, with 24 as the average for a good student, but for the poorer student the privilege of extending the requirements to 30. One full year in residence or a full equivalent in summer session attendance conforms to practice.

We should keep this master's candidate from becoming a narrow unsympathetic specialist in his field. At the present time art demands vision, breadth, sympathy, understanding, and clarity of reasoning.

DIVISION FOR ART EDUCATION AND ALLIED FIELDS. While our graduates should have a definite aim, either in a single department or more than one department, if this desired breadth demands such treatment, work should be done either in or in connection with regular courses of instruction, or *independently of that*. Thus the unusual student, the possible leader, can have a chance to work free from regular courses of instruction under a strong leader, work upon valuable constructive problems, while the less gifted students are placed under more formalized instruction. The student is given the fullest encouragement to reach out into other fields of learning in which his particular speciality may be located. This reaching out into new fields related to his specialty has led to the formation of divisions of the graduate school. Courses naturally allied with art education would include psychology, art history, related art, music, foreign languages, archaeology, sociology and education.

COURSES OF INSTRUCTION. We have referred to regular courses of instruction. Just what should be included in these courses of art instruction? Let these regular courses of instruction be divided into two

parts, (1) a continuance of undergraduate technical courses for new power and techniques, and (2) the seminary. The technical courses could well include such problems as a study of fresco painting and tempera with possibility of applications of school decoration, together with a degree of research as to techniques and permanence of colors. The new age of steel, glass and cement is a challenging array for new treatments.

Another point in connection with more or less regular instruction is that all graduate students neither desire nor are foreordained to teach on the elementary and secondary levels. Thus courses in art history, continuing undergraduate orientation and general presentation, will introduce possibilities of college positions. Types of courses on the graduate level would include possibly such fine arts courses as the introduction to medieval and Renaissance art, engravings and etchings from the Renaissance to the present time. Museum assistantships likewise offer possible fields particularly when, like Wisconsin, there is located a good museum laboratory.

THE SEMINARY. A live seminary will open up problems to be solved—problems concerning the entire status of art in relation to the curriculum and to social conditions. What a challenging problem is this! What can art contribute to the new leisure? While politics and social conditions change, art is always "on the job." How will it fit into the new order of events?

The radio is here to stay. In Wisconsin we have been experimenting with radio courses on art instruction, with the participation by cities and towns spreading rapidly throughout the state. One wonders if a possible new social order will not be closely linked with some form of radio instruction.

Professor George S. Counts speaking of *Vision of a New Age Urged by Education*, states that it must deal fundamentally, realistically, positively with the American social situation. No man is ever living in a more eventful period with the rise of a civilization without precedent, civilization founded on science, technology, and machinery.

An education theory must embrace the entire range of life dealing with labor and income, property, leisure, recreation, government and public opinion, war and peace, art and aesthetics . . . the common man's life must be made easier and his life enriched and ennobled.

Again this is a seminary problem, the relation of art to the social life, a possible change of emphasis from art for the child as an individual to art with the child as an integral member of the community. A master in art education must undertake to consider these problems. In a recent article appearing in *The Progressive Education Magazine*, Dr. Harold Rugg made the following statement (possibly for argumentative purposes):

I am convinced that two great central themes will dominate the new curriculum, one broad strand of human and social science, and another of a creative, self-expression and aesthetic appreciation.

This is another topic for a seminary discussion, so conducted that a student's point of view is of marked importance, the instructor in charge of the course to control the discussion and contribute his share to the symposium.

Along the lines of more technical discussion, a seminary may concern itself with such problems as barrel distortion in relation to the retinal image, and direct its influence on current methods of perspective rendering, devices for detecting depth in painting, in other words, material dealing with improvement of teaching methods. A seminary problem developed at Wisconsin was that of a piano by which varicolored lights, perfectly synchronized in tempo and mood to musical sound, would flood a small stage, linking the arts of sound and sight. This problem had new interest and was written up quite fully in the newspapers of the country. Publicity given work of this advanced calibre in the field of art education will contribute its quota in arousing public interest. Of course many of these problems I mention as possible for seminary discussion cannot be solved at once, but minds of graduate students must be focused upon these living issues.

RESEARCH. We must take for granted the fact that all graduate students do not have the imagination, the vision, the clarity of thought and judgment by which to carry through to a successful issue the worthwhile research problem. Hence, such researches should be limited to more brilliant students who would regard the assignment of problems as a privilege. Projects lending themselves to graduate art research are typical of these examples: radio broadcasting of art instruction, aptitude and ability tests in the field of art, the tactile sense and its relation to empathic nerve and muscle patterns, survey of rural and urban areas with the relations of the type of art taught in these communities and its value, survey of the school field to determine the reasons for removing art and music, forecasting possible art courses with the individual emphasis replaced by community activities.

Detailing a few research problems may be of interest. Consider a student more interested in current art theories than in the acquisition of a perfected technic. In seminary discussions he becomes interested in the Gestalt Theory of Configuration as applied to art. With a background of facts both in English and German, in consultation with European scholars, exponents of Gestalten, he is now painting experimental composition which may lead to important contributions to modern art. One point of this theory is that a painting should *not* have a center of interest, at least according to Gestalten.

Other candidates for the master's degree are trying out new types of courses in their respective cities, while another has been making up correlations for an aptitude test.

THE TESTING LABORATORY. In Section 10 (4) more opportunities to see demonstrations of good teaching was demanded. Practice schools

usually offered facilities for experimental testing of new themes and practices.

As an example of this, we have the School of Creative Arts for young children, a set-up combining music, art and the drama, wherein children wrote their own plays, composed the music and made the sets.

Other laboratories include student workshops, play shops, and galleries in which research problems may be tested. These art activities are not hypothetical cases but live and growing institutions.

Some method should be evolved by which research projects, or at least a brief of such activities, and other pertinent contributions could be published and distributed. Many institutions have valuable material which remains in files, never to see the light of day. Here is a chance for the WESTERN ARTS ASSOCIATION to give publicity to research.

THE DOCTORATE. In behalf of the doctorate in art education, let me say that in time it will be the logical outcome of the M. A. or M. S. Under the present conditions, a qualified student may carry on his problems in any one of a number of departments such as education, art history, or philosophy. It is our mission first to put our undergraduate and first degree houses in order and functioning for stronger teachers—after that the doctorate.

SUMMARY. May I leave with you the picture of a pyramid, symbol of stabilized activity. At its base angles are knowledge and skill, the undergraduate foundation, while at its apex is power—to think, to act, to lead—the graduate goal of achievement.

This apex is composed of (1) formal instruction for study of effective teaching methods and technics, for analysis of current literature, with opportunities for free discussions; (2) the seminary, forming and reforming, sifting and winnowing the wheat from the chaff—or the frills and fads from art education; (3) for the brilliant student, research developing the life blood of the new and progressive art education which is to come; and (4) the studio laboratory for testing new or old contributions. This procedure conforms with current practice in leading institutions, and should form an acceptable working basis for graduate study by graduate committees and schools.

The essence of our problem is not art for art's sake, not art for life's sake, not art for the sake of industry, but art to make the child a better, happier member of society.

GRADUATE CURRICULA IN INDUSTRIAL ARTS EDUCATION

WILLIAM H. STONE

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Graduate curricula in Industrial Arts Education should make major contribution to professional preparation for leadership in this area—inspiring direction and supervision, and superior teaching of the arts of industry in education. Discussion of the topic may well be treated in two parts: (1) conditions and trends in industry, and in education, affecting leadership, and (2) an effective program of professional preparation to meet those conditions. Within the limits set for these discussions, however, they must of necessity be brief, and somewhat general. Their detailed significance will have to be sought “between the lines.”

Industrial Arts Education consists of representative arts or performances of wholesome industrial life, with their accomplishments of knowledge and their emotional concomitants, brought into institutional control or guidance of the school, as one medium through which to orient the individual and the group into the going social order. Of course, this process of orientation is more than mere familiarization with the existing status; also it seeks to make of each individual and group an active agent in constructive social reorganization.

Industrial Arts in the school, then, becomes in traditional terminology, a “body of subject matter,” “an area of educational experience,” fundamentally equivalent, at least, to other recognized portions of the program of studies. From this standpoint, it appears that preparation for professional leadership in Industrial Arts Education should offer no problems essentially different from those more or less common to professional preparation in general. However, dependable information and discriminating thought upon the matter will not go far without becoming aware that there are problems peculiar to this and closely comparable areas of educational activity—problems which may make for or against effective leadership, according to differences among those individuals seeking or sustaining that role. For, here as elsewhere, peculiar problems will constitute obstacles for some, while for others they will constitute opportunities; and always the highest leadership is that which turns obstacles into opportunities.

These peculiar problems vitally affecting leadership and effective professional preparation for it, inhere in industry itself, and in the organization of education in general; hence, in education that seeks through industrial experience to be modern in purpose and character. Any intelligent treatment of the topic under consideration, therefore, requires at least an orientation inquiry into industry, and into the going organization of the school as one of the major social institutions

with a really unique commission, within which effective leadership may define a proper place for the arts of industry.

Considering industry, first it should be noted that as used here, the term is not identical with work in general, but refers to the single area of vocation or economic enterprise known to the census as the "manufacturing and mechanical" pursuits. Next, it should be noted that with the transition of society from a dominantly rural to dominantly urban character, and with industry in general changing from extractive to constructive nature, the manufacturing and mechanical industries have become literally the spearhead of modern social-economic change, if not always of progress. This means that social-industrial activities represent the best and the worst of human ambitions and practices, with all intermediate stages between. Obviously, this means, in turn, unusual obligation and unusual opportunity for educational leadership in the selection and arrangement of educational experience that will make genuine contribution to social progress; carefully selected and weighted experience for the promotion of education in general through this medium, as well as education vocational-industrial in nature and purpose.

Turning next to the school and its place and purpose as a socializing agency, it should be remembered that society has established and maintains what we know as major institutional forms chiefly for two purposes: first, to secure to individuals separately and in social groups the more "durable satisfactions" sought and treasured in the refining processes of living—expressed in a very general way by Eliot as clean animal existence, intellectual power, and honor; and second, to assure to individuals singly and in social groups continuity and enhancement of these ends through the cumulative and stabilizing influences of education. While all of our major social institutions embody this dual or two-fold purpose of furthering both life and education—to the extent that these processes may be differentiated in thinking—they break up into two groups, of five and one, on the basis of which purpose is primary. That is to say, the institutions of home, church, state, vocation, and recreation—the last named even now apparently in process of emergence—have been organized as immediate and direct aids to better living; while the school peculiarly makes its major contribution to life less directly, through education, i. e., it seeks to provide more effective participations in the institutional life of home, church, state, vocation, and recreation, as well as of the school. True, as already noted, all of these institutions engage somewhat in education, but of less formal, more incidental, character; their more formal educational functions have been mostly transferred to the school.

By the very conditions of its establishment, then, the school is commissioned to integrate individuals, separately and in groups, into the institutional life of society—to inspire them with the best discern-

ible visions of their time, and to activate them toward the constantly changing, constantly clearing conception of dearer and more durable satisfactions. Employing effectively its refined and systematized common sense known as psychology, education has subscribed in general to the only sound principle of cumulative becoming, through purposive participation—has subscribed to the desirable conditioning of individuals, singly and in groups, through motivated practice in the institutional arts.

Here appears a most appropriate place to point out the fundamental importance of the arts, their primacy and their integrity both in life and in learning; for in these profound characteristics inhere much of the peculiar opportunity for professional leadership in industrial and other arts types of education.

Obviously the expression "institutional arts" is merely another name for life itself. Primarily, all life literally is art in its generic sense—performance, purposive activity, creative, becoming "The Fine Arts." Whatever else is characteristic of emerging, forward-developing life—systematized knowledge or understanding, and feeling or emotion—in *the long run* is concomitant to performance. By *and large* knowledge and feeling are results not causes of creative activity. To be sure, continuously interpreted experience gives accumulations of knowledge and feeling that enable the more mature individual fairly to anticipate some distance ahead the probable outcomes of his activities; a fact that sometimes gives rise to the misunderstanding that the natural procedure in life and learning is from understanding to action. So great becomes this power to project results ahead, that in repeated activities the end may be rather certainly foreseen. But such procedures are not instances of genuinely creative living or learning. Only to Omniscience may be accredited the vision to *know* prior to creative activity. In human experience, the primacy of the arts is unquestionable. To act upon the opposite assumption, as traditional education has so long and so generally done, is to attempt to reverse the most fundamental law of life.

Again, referring to life as participation in the institutional arts, individuals singly and in social groups perform or *enact* only institutional principles—although they enact them *according to* many other principles of only slightly lesser importance. Thus, typically and primarily one does not set out to perform a moral act, an aesthetic act, an ethical act, a tactful act, or any other than an institutional act. One does set out to perform an institutional act—to give expression in action to the principle underlying the institution of the home, the state, the church, the school, vocation, or recreation; but the *manner* of action, the quality of refinement of process and product determines whether it is a moral, ethical, aesthetic act—that is, whether or not the action or art is a fine art. Genuinely creative life and education

demonstrate the primacy of the arts, and the integrity of the arts as institutional enactments.

While these conceptions are somewhat generally accepted as theory of learning, education has not been generally successful in materializing them in its formal practices. True, primitive education and much informal education of today do this rather well; that is to say, learning as such is rather indirect, incidental to performance—education is a by-product of living. At least this correctly describes the approach to learning, through institutional performances; drill mastery of detailed informations and skills follow rather than precede performance. Formal education, however, persists in reversing this procedure. Instead of bringing into the controlled guidance of the school weighted activities from the various institutional areas of life, formal education rather has yielded to the scientific tendency to analyze these arts of living, and has built its program out of their detailed minutiae. Instead of providing an approach to learning through the comprehensive performances which are the substance of effective living, formal education has broken down or analyzed those performances into their detailed elements of knowledge and skills. These, in turn, have been classified discreetly as subject matter, bundled, ticketed as arithmetic, language, etc., and then measured out to learners in homeopathic doses—again the joy of scientific technicians, because their subjects, as well as their treatments, may be carefully weighed and measured, “before and after treatment,” and results graphically displayed with amazing arrays of tables, charts, diagrams, profiles, psychographs, etc. . . . All too commonly the original place and incidental importance of these details have been forgotten. Misconceived as the substance of culture, they have been regarded as ends of education or employed at best as means of disciplinary drills, even narrowly vocational in method and intensity of use. For much of the practice which calls itself “liberal education” has literally out-vocationalized admitted vocational schooling in narrow training materials and methods.

At best, the hope of the practitioners of these procedures has been that, given the “makings” of institutional activities, the learners would be able progressively to reconstruct the arts of living through their later participations in them. But the futility of such a hope has long been apparent. In the first place, in analyzing out only the knowledges and skills of life, educational materials have been dry and uninteresting; no inspiring purpose has been inherent or could be aroused by disciplinary goads or rewards to breathe into them the spirit which alone can make life creative. No one can doubt the truth of this who has observed such simple evidence as the lessening of spirit with which, typically, children turn from their periods of activity, whether in play, in “extra-curriculum,” or in “special” areas of arts, to the logical disciplines of their “regular” class exercises. Naturally, individuals do

not enact or live detailed subject matter; such knowledge and skills to be educationally effective must be approached through comprehensive activities—must be means to effective living, not ends in themselves.

Not only, then, must the primacy of the arts be recognized in effective education; also effective education will employ the arts not in their isolated details, but in their larger units of performance, as they occur naturally in institutional life. Effective education will bring into its curriculum the wholesome activities of life in the home, the state, the church, the school, vocation, and recreation; that through interested participation in them, learners may be most effectively oriented into and made a constructive part of developing personal-social order. To picture more clearly this concept of effective education through employment of the institutional arts, the place of the modern school and its service to the social body may be properly compared to the lungs and the circulatory system in the physical body. Just as the circulating blood stream is drawn through the lungs and purified and enriched with foods for the body tissues, so will the genuinely modern school draw into its program the going performances of actual life—through its *arteries* of institutional life—there to be refined and enriched by education to the end that the body social in its individual units and its total integrity may be built up and strengthened towards what is looked upon as the better life.

But the aridity of traditional education is not fully sensed in limitation of the program to dessicated knowledges and isolated skills. Even these have been largely limited to the techniques substantially of but one type of intelligence, the academic. Conditions attendant upon the ageless emergence of the going social order have decreed through the school that only the tools of the academic intelligence should have caste and acceptance in the educational program. Tools of the mechanical and social intelligence traditionally have been permitted in the educational program only to the extent that they were indispensable to the exaltation of the linguistic tools of the academies; and even then shredded to much the same status of classified details as English word lists, number tabulations, and Latin paraphrastics. Thus primarily the arts of industry permitted in the school have been broken up and attacked as the “manual training” of purposeless joinery; the arts of homemaking have become the “domestic science” sewing of seams and the working of buttonholes; the physical arts have been vivisected into routine calisthenics and isolated body exercises; and thus on. Typically whatever has been permitted into the educational program must be as nearly possible subjected to analytical techniques and the disciplinary purposes so strongly favored for the linguistic tools of the academic intelligence. Or if permitted moderately to enjoy the animated status of personal-social performances, the institutional arts

have been penalized as "extra-curricular" activities without credit recognition, or by double laboratory work-period requirements for prescribed units in promotion. And the final test of the educated individual has been his mastery of logically organized details rather than creative contribution to institutional life.

Now these indictments of the traditional school as both shallow and narrow and a reversal of the natural law of learning are not repeated here as merely general, abstract discussion of educational shortcomings; they provide a very necessary and very vivid background against which to consider the needs and conditions of leadership, in assuring in the theory and practices of society the primacy and the integrity of the arts; and an indispensable and very vivid foundation upon which may be built up a constructive program for leadership in Industrial Arts Education. They present to educational workers in general and particularly to workers in the professed areas of the arts a dual challenge of danger and of opportunity. Perhaps never before have we seen more certain indications of these facts. In somewhat recent times of relative economic sufficiency, or at least of fancied ease, even the conservative public school has ventured beyond its traditional program of academic details into activities approaching genuine institutional arts. This has been true largely both of what has been taught and of its manner of presentation—for the Practical Arts, within which the Industrial Arts are prominent, are a universal method of teaching as well as a "content" of proximate usefulness. Although largely scoffed at by die-hard traditionalists as sponsors of "fads and frills," many schools have had the temerity to promote programs rather rich in such institutional arts as industry, homemaking, business, music, health and physical development, not as isolated units of information and skill, but as wholesome participations in child life, bringing into the school their concomitant spirit of social intelligence—moral, ethical, aesthetic, and the rest; institutional activities in which children and youth are normally and wholesomely interested, rich in the spirit of social intelligence and in command of social and mechanical tools, as well as the tools of academic intelligence.

But the institutional arts do not lend themselves readily to detailed analysis for traditional educational usage; such types of education have never readily acquired the set and complacency characteristic of academic erudition—and the latter is firmly set and fairly complacent. It follows that the institutional arts have had some difficulty to maintain a place in the school, even in comparatively prosperous times; and with the coming of periods of economic depression, there is always a radical and rapid return to traditionalism—a shrinking to "fundamentals" not only in what is taught, but, even more regrettably, in methods of teaching and learning. Perhaps never have we had as now such evidence of the need for constructive leadership, especially the

leadership of those who see education as an active, refining process of all-round wholesome living rather than as a transmission of accumulated knowledge and narrow linguistic skills.

Within these concepts and conditions then, appear the danger and the opportunity for leadership in the proper utilization of the arts of industry for educational ends. Herein appear at least some definite specifications for a graduate program of preparation for leadership. While no curriculum may be set up in its entirety of common value to all who aspire to become educational leaders in the Industrial Arts, certain fundamentals of indispensable character appear. Incidentally, these are substantially basic requirements for achieving the advanced degrees in education at this institution (Ohio State University), and undoubtedly at other similar institutions of higher learning.

The first requisite—assuming character, capacity, and serious purpose—is substantial mastery, preferably upon undergraduate level, of some major area of industrial practice, both as it provides marginal service to all institutional life, and focal service to an industrial sector of the institution of vocation. This means that while it must be thorough, it may not be narrowly technical, but rich in related and supporting sciences and arts, appreciative of the spiritual as well as the material potentialities of industry. For industrial content is as truly serviceable to all institutional life as is English, mathematics, or any other body of “regular” subject matter. In the intensely industrial culture of today, no institutional area is without its manufacturing and mechanical aspects; and no individual may be competent or cultivated, in any justifiable sense, who is ignorant of the industrial content of his time.

In the second place, while undergraduate preparation should lay a broad and liberal educational basis, the first and continuing concern of the graduate program should be a testing, an amplifying, and a consolidating of professional foundation. As a part of this preparation, successful professional experience in education is as important as is industrial experience. And whether we consider the level of the master's or the doctor's degree, graduate curricula should consist substantially of professionalization of a field of mastery of industrial theory and practice increasingly stressing self-direction in research, report, and application. Even the consummation of the Ph. D. degree should signify nothing finished except mature preparation for a productive professional career in the years ahead.

Although the specifications for such a professional mastery are well-nigh infinite and variable, here again certain large indispensables may be noted. Preparatory curricula must insure that the prospective leader:

1. Shall know the individual as a living, learning, physical-mental-emotional entity; not the individual as a discrete organism, isolated

by enveloping skin and conventional clothing, but the individual in his totally effective environment, material and personal. Subordinate to this major concept, he must know the individual not only as employer of academic skills, but of mechanical and social tools and techniques as well.

2. Shall see the major patterns of individual existence substantially reproduced in society, through which individual potentiality to create and to enjoy is almost infinitely enhanced.

3. Shall know much of the racial experience through which the individual and society have reached their present high degree of emergence—must have the perspective and future vision thus provided.

4. Shall be able to abstract the principles of life thus discovered, must be adept at projecting them on into the future, must be ingenious in employing them in progressive reconstruction of the educational program. The details of this last requirement are too numerous to be enumerated here; but among them all, of first importance is to recognize and maintain the primacy and the integrity of the arts in life and in learning.

5. Will diplomatically combat the persistence in general education of the emphasis on isolated subject matter—will seek to make all education constructive participation in the institutional arts.

Finally, and obviously,

6. Leadership in the educative arts of industry cannot restrict its vision to its own area of manufacturing and mechanical activities; if it does so, it will find itself hampered if not ignored or eliminated. It must see and conduct itself as an integral part of education in general—a large and indispensable part, so long as society continues to be dominantly industrial in character. Effective leadership in *Industrial Arts Education*, while sensitive to its own shortcomings, will take a place in education-in-general comparable to the place occupied by industry in the forefront of total social life.

DISCUSSION

GEORGE F. ARPS

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Dr. Arthur J. Klein was to have discussed the papers presented before this section, but he is absent from the city on account of very serious illness in his family. In these circumstances your President has requested that I summarize briefly the two papers which have been presented.

It is not my purpose to sail under false colors with respect to critical Art information. I may, however, view the discussion from the standpoint of a psychologist. My interest in the work of the De-

partment of Fine Arts and the Department of Practical Arts is derived from two sources. First, from psychology; and second, administration, having been somewhat responsible for the development of the Departments of Fine Arts and Practical Arts over a period of ten or twelve years. My remarks, therefore, will be colored somewhat by administrative contacts and by the psychologist's analysis of the art side of human nature.

Professor Varnum in his paper has rightly observed that it is impossible to "kill Art." Since Art has to do with the love of the beautiful, and since the expression of beauty is a primary human urge, it follows as a matter of course that the artistic in life cannot be suppressed. To "kill Art" is nothing short of outraging a fundamental part of human personality. From this point of view one may quite properly speak fervently concerning the function of Art in human life. Human personality is something far deeper and wider than mere intellectual development—"man may not live by bread alone." Human personality is spiritual, artistic, dynamic—as well as intellectual. There are at least three modes of intelligence—verbal, social and motor. Under motor intelligence we find the appropriate intellectual medium for artistic expression. It is therefore evident that the fundamental reason "you cannot kill Art" is because it is an innate urge in life; and, since it is a primary urge, it is more than an urge; it is a necessity—a necessity in the sense that to deny human beings the right to indulge in artistic expression and to deny an appreciation of works of Art is to deprive them of an essential demand of life. Music, the Practical Arts and Fine Arts are, therefore, necessities in the most fundamental sense of the term.

The Fine Arts, as Professor Varnum and others have said, are essentially creative. The synthetic imagination, which finds its expression in the media of clay, wood or notes is innately creative. It is the nature of man to crave an outlet for imaginative activity. All Art, in whatever form, is but a response to man's hunger for that which is beautiful, as opposed to the ugly and vulgar. Man loves freedom, which, in the realm of the artistic, means nothing more or less than free play for constructive imagination. Art is therefore useful, it is eminently useful, and can by no stretch of the imagination be classified as a frill. Art is an irrepressible need and should be regarded as essential as the three R's. It would seem to follow, therefore, that the youth are entitled to instruction in and development of the artistic aspect of their natures.

It would seem, too, that the first lien upon all of the assets of society is held by the youth. I hold no brief for the Fine Arts or the Practical Arts, or the social or natural sciences. I do, however, most emphatically hold a brief for the necessities of children everywhere. It is strange that intelligent lay people and teachers are compelled to

come to the defense of children to secure for them their inalienable right to develop their sense of beauty.

Professor Stone has rightly said, "Art is everywhere," and this because Art is life itself; it is omnipresent and is inseparable from that which is mundane. In fact, the mundane or material must be inextricably interwoven with Art if it is to be palatable to human intelligence. Indeed, the so-called practical is essentially dependent upon artistic spiritualization. No necessity exceeds in value the necessity of making life beautiful.

Professor Stone's paper is an admirable exposition of the philosophy of Art Education as it applies to life itself. I would not presume to comment critically on so able an exposition of the philosophy of Art Education as given in his paper. He inspires me, however, to say that his viewpoint clearly involves something more than what I frequently call an exposure to colorless culture. If I understand his point of view it is to make Art functional—that is, useful in the development and enrichment of the aesthetic aspect of child life. It is my conviction that material values are in themselves valueless, and that these values acquire virtue only when they are impregnated with moral and artistic values. To regard Art instruction as a frill is untenable and foolish; and it cannot be so regarded without doing violence to the fundamental needs and necessities of children. Educational economy at the expense of Art is either born out of ignorance or is a product of deliberate hypocrisy.

Strange as it may be, it is my conviction that we may look in greatest measure to the lay intelligentsia to support the service for which this Association stands—these discriminating lay people who somehow entertain a large and comprehensive vision of social life, and who, through study or intuition, sense the aesthetic rights and needs of the youth. These lay people and the executives of higher and lower institutions will be favorable to this development only if they see life whole and as something more than frigid intellectual development.

The papers given by Professor Stone and Professor Varnum adequately set forth the objectives to be attained in the symmetrical development of the young. They seem to have pointed out that life should not be segmented but, on the contrary, should be viewed as a whole, to the end that human personality may be developed symmetrically and as a whole. I interpret their papers as a brief for the rights of children to the development of their aesthetic, artistic, moral and spiritual natures. In these circumstances, no right-minded person will denounce Art as a frill but will regard it as an indispensable part of our educational program.

III. THE EVENING PROGRAM ON ART

INFLUENCE OF CHICAGO'S "A CENTURY OF PROGRESS" ON ART*

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The world of yesterday, the world of today, and the world of tomorrow are on parade at *A Century of Progress*, Chicago World's Fair, which opened its gates on May 27. Attractions of historic and educational interest that would require a trip halfway around the world, if a person were to seek them individually, are within walking distance of downtown Chicago on the Exposition grounds.

The Exposition is like an encyclopedia come to life, with thrilling chapters told by means of animated displays. New wonders of science and industry, new homes and household equipment, new comforts and necessities, new architectural design, new and startling uses of color and light, new and thrilling types of recreation, are presented in a setting of green parks, charming lagoons, flower gardens, fountains, and tree-lined drives. By day the grounds are a fascinating panorama of color with crowds of people moving against the background of the windowless buildings. By night they are transformed into a fairyland of light, the buildings bathed in mellow tints and presenting an ever-changing series of spectacular lighting effects.

Changing conditions throughout the world which point out the possibilities of new methods and applications have been taken into account by the builders of this World's Fair. Its sponsors have endeavored to make it expressive of the needs of the present generation and a forecast of the requirements of the future. The Exposition is thus an entirely new venture in world's fairs. The architectural treatment of grounds and of the inside and outside of the buildings reflects the tastes and responds to the needs of men of today. The buildings show a great variety of new building materials and illustrate many practical adaptations to modern needs. They display a new freedom in architectural design and foreshadow a new beauty.

We must accept the hypothesis that any so-called style of architecture, such as we call the Greek or the Gothic, and, today, the Modern, represents not just a desire of the people of the age to do something different from what has been done before, but an interpretation of the problems and conditions of the time, social and industrial causes, the climate, materials and methods of construction. Each epoch learns the use of materials and construction from its predecessor, but

* This address was illustrated with seventy beautifully colored slides.

each adapts them to new uses, adds new knowledge and creates new forms quite different from those that preceded it. That is why the forms you see in the 1933 World's Fair buildings are unlike any you have seen before. It is proof that our creative artists are here translating contemporary life into a new artistic form.

The various buildings were designed by many different architects, each of whom had a different solution for his particular problem. Their designs were different inasmuch as individuals, working not through precedent, but with new materials and constructions, interpreted those materials in an individual manner. The buildings were built to do a specific job and they are doing it. They are exhibition halls and they do not try to "steal the show." They are content to be containers—bright, attractive, tasteful, but not consciously showy. They were built with consideration for the visitor. They contain no awkward flights of stairs, no dark corners, no blind alleys. Ramps are used in many cases instead of stairs, a resilient rubber flooring has been used, and there are no windows. The lighting is all artificial and therefore under perfect control at all times. Besides all this the buildings are air-conditioned for proper ventilation.

Among the architects you find such men as Harvey Wiley Corbett, Paul Philippe Cret, Edward H. Bennett, John A. Holabird, Hubert Burnham, Raymond Hood, Arthur Brown, Ralph T. Walker—many of them graduates of the Ecole de Beaux Arts in Paris, the home of the classical school. They are sound men. Their taste is sane. They have no desire to turn the world upside down for the fun of it. They designed these buildings for the fair, and they prophesy that this is the architecture that you are going to use in your homes, office buildings, and factories.

Never in the history of expositions has color played so important a role. It is color which ties together the entire scheme of buildings. It ties the decorative effects and structures together into one large composition. The entire exposition has been studied as a huge composition, and color has been used artistically and intelligently—not in any hit-and-miss fashion whatsoever. Therefore each building is dependent not only upon its own color scheme, but also on that of the buildings adjacent to it. Also each building is related in color to those throughout the grounds. Secondly, color gives more interest to the flat surfaces comprising the walls of most of the buildings. The materials used have been adapted to a studied relation of mass and silhouette in flat wall surfaces, but these areas are large and often unbroken. Without color they would be austere and uninteresting. Certain materials too, are not beautiful in their natural state. They need texture and quality, and the color gives both. The applied design of garlands and cupids, was the decoration on the classic architecture of the 1893 Fair. The color, in this Exposition, is the applied decoration. The third

essential purpose of color is that it gives the Fair the carnival spirit. One goes to an Exposition to be gay and happy. The color used in *A Century of Progress* buildings is a challenge to the world to use color boldly. The exterior color of the buildings and the general decorative effects were under the direction of Joseph Urban, renowned internationally as a creative artist in color, scenic design, and architecture.

The spectacular beauty of its lighting is one of the big, breath-snatching, unforgettable thrills of *A Century of Progress*. Fairs have been brilliantly illuminated before, but never with such stupendous lavishness in the use of light as this one. The Hall of Science alone is using more light than the entire World's Fair of 1893. This Fair as a whole has fifty times more brilliancy at night than the Columbian Exposition. Every large exhibit building has its own individual, characteristic lighting, depending upon its architecture, its color, and its location. Not only the buildings, but the roads, and paths, the lake shore and lagoon, and the gardens share in this nightly spectacle of light let loose for a gay and glorious holiday. We even find what appears to be fountains of light gushing from the depths of the lagoons.

The Electrical Court has a fountain illuminated in color which is one of the outstanding lighting effects of the exposition. Twelve hundred gallons of water per minute shoot skyward through 496 jets arranged in four concentric circles of red, amber, green, and blue. Under water 135 footlights maintain constant illumination as long as the fountain plays. A huge canopy thirty-one feet in diameter and seventy feet tall rises from the center of the fountain. Its under surface is of hammered copper, chromium plated, and from the thousands of tiny indentations the four colors are reflected like a shower of jewels. The whole inner circle of the court is flooded with light from this spectacular fountain with its opalescent canopy. In the center of the circular facade is another gorgeous spectacle. A waterfall seems to come tumbling over the edge of the parapet to the terrace below, but this is just a bit of light magic performed by a series of mercury vapor tubes. Color screens give a pink cast throughout the court. Above the waterfall a great silver fan of searchlight beams uprears itself against the sky.

The United States Government buildings, the Science Building, and others are "high spots" in the lighting spectacle, but time permits the mention of only a few. Perhaps the most stupendous effect of all is the Scintillator, which is located far down at the south end of the grounds. Here twenty-four 36-inch searchlights in two banks of twelve each, on different levels, blaze away at the sky under the direction of a trained crew who change color filters and alter the direction of the beams in accordance with predetermined plans. The fountains in the lagoons, the Avenue of Flags, the different lighting fixtures, all deserve mention. Of course, these marvellous lighting effects have been

made possible largely through the development of the hot-cathode neon and mercury-vapor tubes. As the incandescent light was the wonder and talk of 1893, so this new lighting is the wonder of 1933. No one who has seen it will ever forget the gorgeous spectacle of *A Century of Progress* in its night lighting.

The most comprehensive and important collection of painting ever assembled in this country is that arranged by Mr. Robert E. Harshie for the Chicago World's Fair of 1933. The exhibit is housed in the Art Institute and is the only one not shown on the Fair grounds. Thirty-one art museums and two hundred private collectors have contributed their most valued treasures. All of the works of art with one exception are owned in America. The one which was loaned from abroad is Whistler's "Mother," owned by the Louvre in Paris. It has the distinction of being the only painting by an American in the Louvre Gallery. The value of the exhibit approximates \$75,000,000, almost twice the value of the entire Chicago World's Fair of 1893.

Throughout the exposition one is struck with the importance of painting and sculpture in the buildings and exhibits. Mural paintings tell the story of the development of industries or symbolize the industries. They form backgrounds against which the exhibits are displayed. The painter and sculptor have worked hand in hand with Industry, with the result that some great works of art have come into being.

Leo Katz did the mural in the Johns-Manville building. He describes it as a strictly modern work which combines abstract symbolism with brutal realism. Cold, heat, noise, and the soulless machine are depicted as monsters from which man must escape before he can know true peace and happiness. The color treatment also is purely symbolic. The murals in the grand foyer of the General Motors Building were painted by Alex Linus. In the vast showroom are mural marquetrys by Niklos Gaspar and Matt Faussner. In this building are also wood sculptures by Carl Hallsthammer which illustrate the preliminary stages in car making. Carl Milles, the Swedish sculptor, has a statue called "Precision" in the entrance hall of the General Motors Building which illustrates one of the essentials in motor design, namely, the importance of accuracy. Other sculptures by the same artist are in front of the Swedish building.

A very modern and very lovely bas-relief by Alfonso Iannelli in aluminum and white on a black vitrolite background adorns the front of the Hall of Science. Iannelli also designed the great water gates in front of the Electrical Building which symbolize energy and power.

One of the most imposing sights at the Fair is the facade of the Court of Hall of Science as one comes south on the Avenue of Flags. The vivid hues of the building are brought out by white flood lights, while the symbolic figures are silhouetted in white against cerulean blue walls.

In the Hall of Religion there is a giant mural symbolizing the rise of the Lutheran church. It is the work of L. W. Becnix Taenzer of St. Louis. Antonio D'Orazi also has work here.

A dancing young figure on tiptoe, by Harriet Frismuth, is placed above a fountain surrounded by flowers in the center of the long hall of the Horticultural Building. Other sculpture is placed throughout this building.

In the Ukraine Village we find work by Archipenko which is ultra-modern in conception.

Very modern but not quite so "ultra" are the massive symbolic figures on the United States Government Building.

C. B. Falls has some astonishing murals in the Electrical Building, while we find John Norton's work in the Hall of Social Science as well as in the Hall of Science.

In the United States Group there are many murals which depict the history and achievements of the various states. Perhaps the most talked about are those in the Indiana Building done by Thomas Benton. As amazing as the murals themselves is the story of their accomplishment. For fifteen years, Benton says, he dreamed of making in painting a history of the United States which would unroll progressively the social and environmental changes of the country from the savage Indian to the present days of our machine culture. Since he was not able to do this because of the expense, he transferred his ideas to the murals for the Indiana Building when he was asked to decorate it. He had to cover 250 feet of walls and do it in less than five months. A stupendous undertaking, but he did it most commendably.

Only a few of the works of painters and sculptors which are on display at *A Century of Progress* have been mentioned. It is impossible to discuss all of them in this talk, as they are to be found at every turn. We are constantly aware that although this may be primarily construed as a century of development in Science and Industry, yet without Art, as it is apparent in architecture, color, light, painting, and sculpture, Science and Industry would make a very poor and rather insipid showing.

We keenly feel, in reviewing this great event, *A Century of Progress*, the Chicago World's Fair of 1933, that we are standing upon the threshold of a great period of artistic development in the immediate future of America.

ART EDUCATION FOR THE CONSUMER

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The time allocated to this discussion permits consideration of but three, of the scores of important phases of this subject and perhaps a

momentary glimpse into the tomorrows. Let us arbitrarily select these three:

1. The necessity on the part of the public for a deeper, clearer art consciousness.
2. What consumer group is the most receptive, retentive, and constructive to inoculate with art consciousness?
3. Increasing identity of art in industry.

The axiom, "Without art consciousness there can be no consistent expression of clear vision or true sentiment," fundamentally and perpetually establishes the status of art. The wellspring of all that is creative finds its stimulant and complement in the realm of art. Every phenomenon of the universe proclaims its operative inspirational presence. Every inspiring consciousness of humanity conforms to one or more of art's mandates. Art is the handmaiden of vision and imagination. Vision and practical inauguration alone create every improvement manifested in human experience. Its need is perpetual and obvious, but its appreciation on the part of the public seems to be relatively shallow. Mr. and Mrs. Consumer surely need to be consistently, persistently, intriguingly reminded and re-instructed and re-sold.

If you are challenged at times with the thought: "Is it worth while?" step out and look thoughtfully at the nearest church spire and remember that necessary, vital subject-matter has been promulgated for nearly 2,000 years and the need continues unabated. You will return revived in spirit and determination.

Why is appreciation relatively shallow? To discover and agree on the *why* permits the individual formulation of the winning procedure, does it not? With adults, the confusion of distressing material influences of the past decade—the unprecedented and colossal events that have staggered across the human stage, the challenge or destruction of seemingly every established landmark, the overthrow of governments, the disappearance of previously accepted human authorities, and the continued pressure of the economic—seem to have dulled, for the present, at least, those fundamental qualities that otherwise spontaneously respond to every true expression of art—culture, beauty, and loveliness.

Unfortunately, this reflex has been nation-wide and dominant with the majority of adults. Fortunately, the tide has turned, and there is on the part of adults of every classification and avocation a re-awakening and receptivity to the inspired message of art.

The youth in universities, colleges, and other schools are quite cognizant of the foregoing observation, yet with those fine attributes of youth—vision, keen expectancy, instinctive sense of relativity, they possess and express, as directed and instructed, a warm appreciation of the charm, inspiration, and cultural benefits possible today from art in its limitless forms and expressions. Surely that is the ideal present

and future classification of our citizenship that justifies and inspires your directed educational services. You will also agree that they can and will constructively influence the adults in an increased appreciation of art, proportionate to their informed enthusiasm, which you are qualified to direct.

Proportionate to the increased public knowledge and appreciation of art will be the spiritual, social, and business advancement of this nation.

Increasingly in the last three years the home has become the fortress, the castle, the keep, the retreat, the empire, of Mr. and Mrs. Consumer. Is it not self-evident that to the degree their minds are intrigued with art in its many available and compensating expressions that they will instinctively desire and demand an inspiring home environment, possible only by the correct employment of applied art?

America is eagerly seeking—perhaps inarticulately, but none the less definitely—a change of the present environment in the home: a change that embodies newness with charm, cheerfulness associated with inherent goodness, and an atmosphere that breathes hope confirmed.

Unfortunately the percentage of our citizens who know how to make this an actuality—even one room at a time—is tragically small. The fact that this deep desire is operative across the nation confirms the ready, retentive receptivity on the part of home-makers as well as a student body to your educational offices and timely services.

And industry, representative in the factor of employment of the largest percentage of that audience of yours, whom you call Mr. and Mrs. Consumer and their families, has, as you know, awakened and is increasingly aware of the importance of art. Industry literally accepts the principle that the application of art expresses "skill and taste, interpreted in production according to aesthetic principles." Constantly finer expressions of art are produced by that factor in our civilization called industry, which until the last quarter century was presumed to be blind to all except dollar profits. What a happy Renaissance for industry, already creeping toward better days. Consider but one of the basic industries—perhaps the one that intimately touches and influences the lives of humanity more than any other. I refer, obviously, to the creation and production of fine furniture.

Last fall I had a lengthy conference with a continental savant, a scientific man of world recognition, who advanced the firm statement that for ten years it has been the opinion of the European and Asiatic intellectual group that the past four years have been but the unescapable travail of birth of the long-hoped-for world-wide intellectual Renaissance. He stated that it has been and is the conviction of the group that the new day has already dawned, and among the factors that will enjoy increased appreciation in every land will be all the

immutable values. The arts will increasingly come into their own. Unprecedented invention will rapidly advance and confirm changing human preferences and desires to a higher plane, and humanity will discover that man's identity is mind which was created for the continuously increasing expression of growth.

Your work has been a tremendously inspiring factor in creating and sustaining a higher vision and hope, which, when broadened and deepened, will assist in transforming the prophecy of the continental savant into an actuality and will underwrite for our children and our children's children the fine, clean, glorious heritage to which they are entitled.

IV. THE SUPERVISION PROGRAM

VARIOUS PROBLEMS OF SUPERVISION

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Clearly the ultimate criterion by which any educational procedure, supervisory or otherwise, should be judged is its effectiveness in carrying into effect the aims and functions of the institution in which the procedure is used. The chief concern of the school is, of course, the pupil. The stimulation and direction of his growth in channels which make for the progressive development of his worthy interests, capacities, and outlook and the constant refinement of the social order of which he is an active participant, must be the measuring stick by means of which the school's total program is evaluated. Activities and procedures all too frequently are judged to possess values inherently, rather than in terms of the extent to which they produce desirable changes in human beings. Thus we have activity programs which seem to exist primarily for the sake of activity; administration which sets up elaborate principles and techniques of management without raising the previous question of just what it is that is to be managed; and supervisory programs which exist quite apart from the learning situation and concern themselves primarily with the meticulous analysis of teacher traits and activities.

It is hardly adequate, however, to end our search for an acceptable criterion for evaluating supervisory practice with the important generalization that it must foster child growth. Before that term can have any meaning upon which action may safely be based it is necessary to attempt to set forth in some detail the direction which growth should take, and here we come face to face with the intricate problem of the aims and purposes of the school.

At the risk of multiplying the confusion by the addition of one vague term after another, it is proposed that the "democratic ideal"

serves as the best basis for the interpretation of the aims and functions of the secondary school in terms of pupil growth. In this ideal we have the common ground upon which we can meet, and a center of reference which may be used for the pooling of our differences of opinion and outlook.

Traditionally democracy means merely a form of political organization "in which each member of a group contributes his opinion to the formulation of common decisions." This may mean, of course, that the will of the majority is imposed upon the minority to such an extent that individuality and intellectual integrity are crushed out ruthlessly. On the other hand, it may mean a sort of "good sportsmanship" attitude which causes the minority to accept the will of the majority as a plan of action on which all unite wholeheartedly. One result of this interpretation is a kind of equalitarianism in which the "common man" is exalted. Hence the democratic attitude is interpreted as a justification for thinking alike, dressing alike, and acting alike.

"These views of democracy are inadequate and seem to extinguish the individual rather than to exalt his significance. Nevertheless, despite the fact that in its crude functionings democracy is habitually inconsistent and exercises little tolerance and patience with individuals who differ from the herd, there has emerged as an integral part of the democratic ideal an uncommon faith in the common man. From this respect for the common man it is but a step to a recognition of the value and the working of an individual. Once this respect for the individual is established, it is possible to generate in the minds of men an appreciation of the importance of differences, and the unique qualities in human beings receive recognition as well as do the commonplace.

"There is good reason to believe that our conception of democracy has evolved to this point today. The term, 'democracy,' no longer denotes exclusively a form of political organization. Neither is it synonymous with equalitarianism. It implies rather an attitude which human beings assume toward each other such that the actions of one are regulated in the light of a sympathetic appreciation of their significance and meaning in the lives of others. Under these conditions the differences between people are valued as well as the points which they have in common. The thing that matters most is the development within each individual of an ever-growing sensitiveness and responsiveness to others.

"A sympathetic response to one's fellows is a basic condition for realizing the democratic ideal. It is one with the development of an imagination such that while one may act with independence and fearlessness of judgment, and deviate at times widely from the convictions of his groups, he will always be fully conscious and considerate of the

effects of his acts upon others. As we have already indicated, this conception of democracy both respects and encourages differences, but it does not confuse a difference in function with superior and inferior."¹

The acceptance of this concept of the deeper meanings of social democracy has important implications for the clarification of the concept of growth, and consequently of the purpose of the secondary school, and the kind of activities and programs which it should foster. These will be set forth briefly in the form of brief statements which, for lack of time, and because of their obvious character, will not be defended by extensive argument.

I. The progressive school recognizes and faces the inevitability of social changes in a democratic organization, and desirability and possibility of a progressive refinement of society through educational direction.

II. The progressive school seeks to organize its life in terms, primarily, of those ideals, and attitudes which are an indispensable part of democratic social living.

III. The progressive school regards the growth of the individual as dynamic, progressive, experimental, and relative to a fluid environment, rather than in terms of fixed limits dictated either by preconceived notions of original nature, or by inevitable social forces.

IV. The progressive school promotes those learning activities which make for flexibility of behavior, by providing for constant opportunity for the solution of the problems of living through reflective thinking.

V. The progressive school seeks to provide learning experiences which will promote the development, on the part of each pupil, of a consistent, unified social outlook through a reconciliation of the conflicting ideals and standards which are a commonplace in American life.

VI. The progressive school cherishes and develops individuality and a respect for personality, by providing an environment which stimulates each pupil to achieve his maximum growth in the development of a "reasoned" ideal of social living and a wide range of interests, through active participation in group life.

The problem of evaluating supervisory practices then is solved by an examination of those practices in terms of the purposes for which the school exists. It is inconceivable that a relationship between pupils and teachers which is essential to the carrying out of the program proposed above, should not prevail in every area of the schools activities. "As applied to the supervisor-teacher relationship, the democratic ideal does not sanction the imposition of the supervisor's will upon his colleagues. Neither does it permit of a relationship in which each mem-

¹Alberty, H. B. and Thayer, V. T. *Supervision in the Secondary School*, pp. 90-91. Boston: D. C. Heath and Company, 1931.

ber of his staff goes his own way without dynamic connections with his fellows or the aims and purposes of the school as a whole. Democratic supervision implies that a supervisor will strive, by virtue of his position, to organize his school so that all factors in the situation, supervisors, teachers, pupils, and even janitors—will carry on their functions cooperatively and in such wise that each can define and perform his duty with an increasing appreciation of its bearings upon the functions of others.”²

It has long been recognized in the theory of supervision that in many of the teacher-supervisory relationships, the very antithesis of this democratic spirit prevails. Yet, in practice it has been very difficult to secure concrete evidence on this point. True, the literature reveals, here and there a bold spirit that has dared to assert in print the fact that supervisors are still dominated by the “superior-inferior” concept, or by what is perhaps more frequently known as the autocratic conception. Again the techniques which many supervisors employ in visitation and conference, rating, curriculum construction, and various types of research, are evidence that supervisors do not yet realize the significance of applying the democratic conception of education to the field of supervision.

A recent report of a national committee which investigated the present status of “instructional leadership” has presented some interesting data bearing upon our problem. By means of a questionnaire, this committee sought to ascertain the manner in which conflicts in points of view and procedures, which develop between supervisors and teachers, are resolved. The following replies are suggestive:

1. “Before stressing any major educational trend, such as that represented by the activity school, the general supervisor should enlist the help of her superintendent in having a policy *pronounced* for the *entire school system*—a policy voiced by the superintendent and endorsed by the board of education. These recalcitrant principals should be held accountable to the superintendent and board.”

2. “As a matter of course, teachers are instructed in the particular method advocated by the special supervisor and *results of teaching are measured by adherence to this method.*”

3. “Advise teachers to follow dictates of each supervisor, so that the supervisor will not be antagonistic.”

4. “I should decide which type of school I favored and then get the general supervisors together and discuss the situation. If I could not persuade them to agree upon the type of school I wanted, *I should announce my policy and expect both of them to work with me.*”³

² *Ibid.*, pp. 91.

³ *Effective Instructional Leadership*. Sixth Yearbook, Department of Supervisors and Directors of Instruction of the N. E. A., pp. 104. New York: Bureau of Publications, Columbia University, 1933.

The following comments by teachers indicate that in many situations there is little opportunity for "sharing in the determination of policies, sharing in deciding what values we shall seek, sharing in thinking out and devising ways and means, sharing in the critical evaluation of outcomes, sharing in the joy of achieving."

1. "As the principal is held responsible for the administration of the school on approved plans, so are the *teachers held responsible for carrying out the wishes of the principal* or asking for a change of school."

2. "Little conflict is found here because the special work is cared for at the special teacher's time and by use of whatever method she prescribes."

3. "There is a feeling among *teachers* that their viewpoints *must be suppressed* because of the higher authority of the principals."

4. "Being a teacher, I would do as the principal desires."

5. "My reason for checking the conflict as having no harmful effect is that the *teachers are willing to conform to the preferences of the supervisor.*"

6. "I should do as the principal wished, but try to convert him."

7. "Try to do as the principal desires, but use my own methods just as far as they can be used without open combat."⁴

It is evident from these replies that supervisors and administrators do not yet look upon supervision as a cooperative venture in any true sense of the meaning of *cooperation*. All too frequently it is defined in terms of the extent to which the teacher conforms to the program proposed by the supervisor. Lack of conformity, or even of enthusiasm is often construed as a failure to cooperate.

As further evidence that supervision is not yet regarded as a democratic enterprise which calls for constant sharing of interests and contributions, an interesting statement is submitted from a recent article by J. M. Gwinn, Superintendent of Schools, San Francisco.

After an extended argument in favor of defining supervision in terms of providing better learning conditions, he sets up the following significant program:

"The first purpose of the supervisor, to diagnose or interpret the learning situation, may require inspection, research, surveys, all the activities necessary for him to gain a complete understanding of the learning situation. The supervisor, therefore must have a sound philosophy of education and must be able to analyze the facts of the learning situation in terms of the future.

"These include facts about the training, the skill, the purposes, the philosophy, the health and the energy of the teacher. There are also important facts to be learned concerning the pupil, such as his

⁴ *Ibid.*, pp. 105-110.

abilities, his achievements, his environment, his habits, and his interests. The supervisor must also be familiar with the facts concerning the curriculum, the textbooks, the supplementary books, the library books, and the materials needed for learning. He must be thoroughly familiar with the operation of the school as a whole, including the work of the principal.

"In securing and interpreting the facts, the supervisor *may* require the assistance of the teacher, the principal, the research specialist, and others. The wise supervisor will study *his* problem carefully in order to determine the best methods to employ in diagnosing the learning situation in his city. It is important that the facts be thoroughly understood before a plan of treatment is presented.

"The second main purpose of the supervisor is to develop a definite plan for improving the learning situation. This plan will be determined by the facts already found and interpreted. It is imperative that the plan developed by the particular supervisor should not conflict with the aims and purposes of other supervision, and it is equally important that the plan conform to the requirements of education in the broader sense. The maker of a plan must be a broadly educated person who has had a wide experience."

Among the features of the plan which the supervisor makes, are to be included the following: (1) "to educate and train the teacher; (2) to make a course of study and a program of work for the teacher and the pupils adapted to their needs; and (3) to teach the teacher how to diagnose her teaching situation."

The plan to be put into operation "involves situation-making favorable to good teaching and learning, checking and evaluating results, approving and disapproving of the results. The checking and evaluating merge into the activities in supervision."⁵

Several points stand out clearly in the above discussion. First, it is the *supervisor* who does the diagnosing, planning, and executing of the program. The teacher "may" be called upon for assistance in securing and interpreting the facts, but this precaution is merely for the purpose of getting all the facts. There is no implication that the teacher might have definite and valuable contributions to make in all phases of supervision. Second, there can be no doubt as to the ownership of the plan. It is the personal plan of a "broadly trained" supervisor, and third, the execution of the plan implies that the teacher is to be "educated," that is, converted to the plan, and that she is to be *given* a course of study for carrying it into effect.

One may reasonably ask whether such a program provides the conditions necessary for professional growth on the part of the teacher; whether it has in it, those essentials of democratic life which are held

⁵ "Supervision—Its Scope, Purpose and Accomplishments." *The Nation's Schools*. XI (January, 1933), pp. 49-50.

to be necessary in the organization of a school; and finally, whether the plan would in effect, and over a long period of time improve learning?

The sole direct path to the result which Superintendent Gwinn desires, lies along the lines proposed above, that of the fostering and developing a genuine social spirit within the school system which takes into account the fundamental principles of growth through democratic social living. Any other program smacks of external imposition and autocratic methods which at best can be only temporarily successful. In the end, the teachers in such a program, either move on to a more stimulating environment, or slump down to a level of servile complacency. In either event the policy defeats its own end.

Up to this point we have been concerned with the general attitudes and procedures which are prevalent in the supervisory world, and with the evaluation of them in terms of the purposes for which the school is striving. It remains to indicate briefly how these attitudes and procedures apply to specific supervisory situations and their effects upon the carrying out of the aims of supervisors which have been expressed in terms the concept of growth.

Practically all studies of supervisory programs which have been made, indicate that by far the most common activities in which supervisors engage are those which are concerned with the visitation of the classroom, and to a much less degree, with the individual conference with the teacher.⁶ In the procedures which are used in these supervisory activities are revealed the nature of the supervisor's philosophy and his concept of the purposes of supervision.

An examination of the data bearing upon this procedure reveal the rather startling fact that the purpose of classroom visitation is mainly inspectional in character. One investigator points out the significant fact that only "13 principals out of a total of 130 do anything at all about a lesson that has been observed." Another investigator found that 68 per cent of the high-school teachers who reported, received no suggestions whatever from supervisors concerning their work. Obviously, if no conferences or suggestions result from the supervisory visit, it could have no other purpose than mere inspection.

The inspectional nature of this phase of the supervisor's activity is further revealed by the techniques which the supervisor uses in making classroom visitations. These range from complete stenographic reports which are later analyzed, and sometimes made the basis of a conference, to elaborate checking lists like that developed by Peik⁷

⁶ For a more complete discussion of this problem as well as a more extended development of the viewpoint in this paper, see Alberty, H. B., and Thayer, V. T. *Supervision in the Secondary School*. Chapters IX and X. Boston: D. C. Heath and Co., 1931.

⁷ Peik, W. E. *Objective Analysis of Recitations*. Minneapolis: Educational Test Bureau, Inc., 1932.

which provides for the checking and evaluating of every minute detail of what goes on in the classroom, the complete list containing 148 separate items. For example, the supervisor checks such items as, "objectives clear to the teacher," "no interruption," "recognition of child nature," from zero to three, with intermediate steps ($\frac{1}{2}$, $1\frac{1}{2}$ or $2\frac{1}{2}$) if the supervisor so desires. To determine the criterion of a good recitation, the author proposes the following: "The sum of the numbers (3, 2, 1, 0) on all items (of section VIII) is divided by 32 and multiplied by 100 to get an index of quality on criteria alone." While it is readily admitted that the *improvement* of teaching and learning is the theoretical purpose of such schemes, yet it is equally true in practice that the emphasis is very apt to be placed upon inspection. No supervisor can systematically check 148 items in the course of a single recitation without making the teacher feel that he is being inspected, and as a result, without so interfering with the learning situation as to render the value of the device open to serious question.

Aside from the danger of developing standardized and mechanical teachers, there is the even more serious difficulty of maintaining the proper supervisor-teacher relationships. It is one thing to develop cooperative standards of good teaching which function in giving direction to learning. It is quite another thing to utilize external standards for the purpose of imposing final judgments of the supervisor upon the teacher. As has been suggested, if the relationship is to be wholesome and conducive to growth, both the teacher and the supervisor must have equal opportunity to contribute to the solution of common problems. There must be full and free exchange of viewpoints before decisions are reached. To take a specific example, according to the Peik procedure, suppose that the supervisor has visited the teacher, and checks and evaluates, the item, "Recognition of child nature," as being worth one and one-half points. According to the manual of instruction this item is interpreted as follows, "Method and material adapted to native and acquired capacities of pupils. The pupils' natural instincts rivalry, imitation, activity, curiosity, group approval, manipulation, rhythm, etc.) and interests are used in the learning situation."⁸ Aside from the questionable psychology implied in the definition of the item, the supervisor is called upon to pass judgment upon this intricate and complex situation, without having first discussed it with the teacher. How much more "scientific" would the procedure have been, had the supervisor (or the teacher) in conference raised the question of the "recognition of child nature" involved in the activity, and together analyzed the available data, and reached some conclusions, as to the manner in which effectiveness might be increased. In such a situation the supervisor and the teacher would have equal opportunities to learn from and be stimulated by each other. Instead the teacher is

⁸ *Ibid.*

confronted with a grade of "1½" on his effectiveness in utilizing "instincts" which at best are of a very tenuous, if not dubious, character. He has not participated in the judgment, and has had no opportunity to supply the necessary data for solving the problem. The question may be raised also whether or not the *grade* is a necessary element in the situation. The important thing is that the supervisor and the teacher mutually plan a solution of the problem. The grade tends to focus attention upon the finality of the situation rather than upon the potentialities of it.

Space does not permit the examination of teacher rating scales, and other supervisory techniques from the same standpoint which has been used in evaluating the above procedure. In the form proposed above, "visitation and conference" and teacher rating are in the same category. Hence teacher rating is open to exactly the same objections. "In the first stages of teaching and supervision, when teacher and supervisor are novices, such check lists may serve as convenient inventories of a teacher's functions. Experience, however, soon renders this crutch unnecessary. In so far as the supervisor passes sound judgment upon his teachers, he will do so upon the basis of intimate contacts with their work. The judgments will be the outcomes of efforts to engage with teachers in the professional activities that constitute the central elements in supervisory procedure. When a supervisor works intensively with his teachers in the solution of their problems and in the undertaking of new ventures, he will know their strength and weaknesses more accurately than is possible from a few observations on a score card. The frank conversations that come from association on committee work, the discussions that grow out of the mutual visiting of classes and centering jointly upon specific classroom problems will give him a sound insight into his teachers' qualities without the embarrassment and the misunderstanding commonly engendered by the introduction of rating scales into the supervisor-teacher relationship."⁹

In conclusion, then it may be said that the democratic ideal affords the principle of organization, not only of the school itself, but also of the supervisory program. When this ideal is made central in the thinking of all who are concerned with the success of the school, and when supervisors and teachers are engaged in the common task of furthering it, much of the suspicion, the embarrassment, and the feelings of inferiority, which characterize many of our supervisory practices, will tend to disappear. In their place will come a unified and harmonious program to which all may proudly claim allegiance and in which all may participate in terms of their respective capacities and interests.

⁹ Alberty, H. B., and Thayer, V. C. *Op. Cit.*, pp. 166-167.

ORGANIZATION OF INSTRUCTION MATERIAL THROUGH CENTRALIZED SUPERVISION

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The problem of organizing subject matter in Industrial Arts is based upon the needs of the learner and the present demands of the school, due to the ever increasing size of classes. The objectives of this field of work are: To give the children a general or liberal training; to provide for progressive differentiation; to provide instruction which is fundamentally correct and scientifically sound in all subjects. If school men accept ends of this kind, the question which confronts the supervisors and teachers of Industrial Arts is, How can such practice be made to conform with theory? How shall teachers "educate" rather than "train." Is there any way to justify activities which follow definite prescription and dictation, or which reproduce standard projects without modification, when education really requires the perception and elaboration of ends and the use of judgment in selecting and adapting means?

To realize or attempt progress which would lead to the answers, or if one may call them objectives, and entertain a hope to reach the goal set up by such objectives, the need for an effective and cooperative organization becomes obvious at once. The agency which may make possible a working organization may be termed as "centralized supervision." Teacher's experiences, their educational background, can be utilized and their combined efforts must be synchronized. Effective supervision, therefore, should accept responsibility for the realization of valid objectives. One of the means toward the realization of such objectives is through a method of organizing instructional material like that developed in this paper.

Industrial Arts in a Large City System. A further clarification of the needs and purposes of Industrial Arts involves a brief description of an Industrial Arts program in a large city system. The term Industrial Arts includes all of those school subjects whose content is largely drawn from industry. Since the major part of this paper is concerned with General Metal Work and Printing, a brief historical review may be advisable to show the complexities and problems which confront general and specific supervision.

With the introduction of junior high schools in Cleveland some fifteen years ago, sheet metal and printing were added to the curriculum as industrial arts subjects, which had consisted at that time only of woodwork and mechanical drawing.

Sheet metal work was taught until 1925, at which time it was decided to convert these shops into general metal laboratories. This change eventually brought about the inclusion of three other methods

of manipulating metal through the following related departments: foundry, elementary machine shop work and forging.

As usual, the change from Sheet Metal to General Metal brought about new problems in administration and supervision. Among these were:

1. Securing of teachers who could successfully teach the four units in one shop
2. Organization of subject matter on the basis of fundamentals
3. Training of teachers
4. Securing some standards and uniformity in methods, in view of the varied experience of teachers
5. Bringing about articulation between the various schools
6. Writing of instructional material, both processes and related information
7. Evaluating instruction

After five years of experience it was found that the difference in method and results was entirely too varied. This variation was due almost entirely to past experience of teachers. Their previous experiences were as follows:

1. Several teachers were tool makers by trade
2. Some were sheet metal workers
3. Others were graduates of colleges with majors in Industrial Arts
4. A few had secured their trade experience in foreign countries
5. Their general educational background was equally heterogeneous

The wide range of subjects taught in the Industrial Arts program was further complicated by the fact that Cleveland is decidedly cosmopolitan. The characteristics of the student body were different in every school. The demands varied, yet some articulation between schools had to be secured if the school system were to remain a complete unit. Therefore the goals of instruction had to be determined, instructional material prepared, and universally used. This was the problem of supervision.

Another problem of supervision in a large city school system was bringing about articulation between the various schools and towards the development of some uniformity in teaching methods. All supervision was confronted with varied types of localities where the problems and interests of a community were dominated by tradition, customs and habits. Another problem was the varied background of teachers. Careful consideration had to be given to ways and means of successfully adapting the work to the needs of pupils and of presenting material to the class. Another important point pertaining to method was the correlation of this work with other school subjects. Further, individual instructional material in the form of properly written in-

struction sheets presented many difficulties because of the varied experiences and educational background of the teachers involved.

Some Problems of Supervision. What is supervision? Webster defines supervision as an act of overseeing; superintendence; oversight. This definition is entirely inadequate because it implies dictation and inspection only. An act of "overseeing" may mean a distant relationship, and definitely places a dividing line between those above and below each other. Such conceptions of supervision usually lead teachers to develop misconceptions about their supervisor, and instead of bringing about a close relationship, it tends to pull the teacher and the supervisor further apart.

An examination of the literature on supervision reveals that many attempts have been made to formulate a definition of supervision. Invariably one finds in these definitions only a collection of procedures. Alberty and Thayer in their book, *Supervision in the Secondary Schools*, list four major attitudes toward supervision:

1. The Let-Alone or Leisure Time Conception
2. Autocratic Supervision
3. Scientific Supervision
4. Democratic Supervision

The types of supervisory organizations listed in the *Research Bulletin*, N. E. A., Vol. VII, No. 5, and which are most common are:

1. The Dualistic
2. Line and Staff organization with special supervision subordinated
3. The Non-divisional line and staff organization with special supervision vertically organized
4. The Divisional Line and Staff organization with special supervision vertically organized

The *Department of Superintendence Yearbook* of 1930, gives supervision four definite functions:

1. Inspection
2. Research
3. Teacher Training
4. Guidance

The phases of supervision announced by the Department of Principals, N. E. A., are:

1. Philosophic
2. Cooperative
3. Creative
4. Scientific
5. Effective

The organization which operates in Cleveland may be referred to as a "coordinate system."* This implies the thought that supervision

* Alberty and Thayer, *Supervision in the Secondary Schools*.

and administration must work toward a common end. Supervision is a cooperative activity and only by this method can it be constructive. The aim of constructive or cooperative supervision is to upgrade teachers and in general improve instruction. It is the duty of the supervisor to assist teachers in locating and solving their problems.

In a "coordinate system" the supervisor does not encroach upon the function of a principal, neither does he establish a division of authority as is the case in the "dual system of supervision."

The material presented in this paper deals with the organization of instructional material, and tends to establish two phases of supervision:

1. That supervision is cooperative
2. That supervision is effective

Supervision and its agent must work towards common ends. It is the duty of the supervisor to work with teachers towards the solution of mutual or common problems. This involves the creation of situations in which teachers become aware of their problems and seek assistance in their solution. Dictation and inspection are thus eliminated. Any thought of level in positions is set aside and teachers turn naturally to the supervisor for help.

The special supervisor is frequently a technician. He must teach teachers to become proficient in their subjects and it is his duty to acquaint principals with standards and methods in order that all may assist in directing and improving instruction. It is also the supervisor's duty to assist the principal and superintendent in formulating general educational policies and plans related to his individual field. Teaching practices must be surveyed and difficulties remedied.

"Centralized supervision" serves as a clearing house for ideas. It returns or passes on to all of the teachers in the system the contributions of individual teachers. Essentially, it aims to bring together all who are concerned with similar educational problems for mutual profit and for the exchange of experiences.

The ideal and practical conception of a supervisor is that the supervisor should act as the agent through whom the teachers may indulge in a cooperative exchange of ideas, aimed at the common problems of how to instruct most economically and efficiently, and which will lead to teacher's professional growth and pupil's development. This procedure is only possible through "centralized supervision." Some of the major problems of supervision are as follows:

1. Centralized supervision should be concerned with the improvement of materials and methods of teaching
2. Supervision should inspire and encourage a good teacher to study, to experiment, and to prepare for more responsibility
3. Supervision must redirect and improve the work of the average and mediocre teacher, and it should eliminate those

- teachers who fail to measure up to certain definite standards of good teaching
4. Supervision should supply the means and stimuli to enable teachers to live up to the standards set, and to carry out the program outlined.
 5. Supervision, to be effective, must be a cooperative procedure.
 6. Supervision must develop and encourage initiative, self-reliance, intelligent independence, and the assumption of definite responsibilities
 7. All supervision must be judged by its results

Instructional Material. One of the outstanding needs of the schools, due to increased size of classes and rapid social, economic, and vocational changes, is a thorough reorganization and development of instruction material. The development of such material is very decidedly a cooperative venture. Teacher's experiences must be brought out. The tremendous variations of student bodies in the various schools must be recognized. Their abilities and background must be given most serious consideration. If instructional material is to be prepared, it must in the final analysis, be usable, and by the process of experimentation, must prove of value. Therefore, the setup of certain goals becomes essential, and here again, unless supervision is cooperative, this cannot be accomplished.

Teachers must be made to realize that their problems are common problems; that all teachers are concerned with the same problems, namely, that of "civilizing individuals" through subject matter.

Supervision, if it is to be effective, must help teachers to secure an effective working knowledge of the tools of teaching. Such tools are instruction sheets, tests, instructional material, teaching devices, suitable equipment, and other aids. Theory and practice must be coordinated.

In addition to organizing instruction material on the cooperative basis, teachers must be taught how to use this material most effectively. As has been stated before, supervision must be cooperative if it is to be effective. The evidence presented in the various charts shown in this paper illustrate the effectiveness of such cooperation by comparison of results obtained without the use of organized instructional material as compared with the results where definitely organized instruction material has been used.

SUMMARY

1. Supervision should be viewed as a means of growth for the entire system since the supervisor is privileged to give aid and also to obtain information which may in turn be used in the aiding of others.

2. The relation of the supervisor to the teacher should be that of counselor rather than that of critic.

3. The suggestions of the supervisor to the teacher should center about the actual situation rather than being mere generalities couched in educational and psychological terms.

4. The teacher should be made acquainted with a philosophy of education.

5. Certain well organized devices of supervision hold prominent places in school systems with organized programs for aiding new teachers. These include conferences, demonstrations, visitations, and inter-visitations.

6. One of the chief problems of supervision is aiding teachers in the organization of instructional material. While teachers are entitled to every courtesy and cooperation, the school does exist for the pupil and the pupil is entitled to the best instruction that can be obtained. One method is through definitely organized instructional material and instructional control.

7. Experiments must be continually tried under scientifically controlled conditions. Such procedure has a healthy effect upon teachers and it also shows the futility of solitary departure on the road of uncharted and promiscuous wanderings.

INSPECTIONAL, CRITICAL, AND CREATIVE SUPERVISION

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There are three definite types of supervision. It is true there are many other types besides the three I have listed, but these three are the most outstanding, as far as my experience is concerned. The first one, I choose to call the inspectional type. I hope there are not very many inspectional types of art supervisors remaining in the schools of today. When supervision was first instituted, the supervisor was certainly an unpopular individual. A teacher once said to me, "This art supervisor—if she can't cause an awful lot of trouble with her airs."

I have heard teachers say concerning a music supervisor, "You know that woman has all kinds of tricks up her sleeve to find out how much we have taught. She can find out in three minutes how much the pupils know. I dread the day she arrives."

I do not need to dwell further on this worn out idea, because I believe that we have very little purely inspectional type of art supervision today.

The second type of supervision is critical supervision. This type does not bear the stigma of displeasure, I believe, that the first type does. Critical supervision, I assume, carries with it two ideas, one of commendation and one of a remedial nature. First, the supervisor sees

the type of work that the art teacher has done, looks over this work very carefully, and having completed her so-called inspection, always adds a word of comment of the best that has been done, and always a suggested remedy for that which has not been correctly done.

We will always have critical supervision. We always should have it. One never makes sufficient progress unless he or she knows they have accomplished a certain thing or have failed to accomplish a certain thing. If they have failed, our duty is to see if we can guide them kindly to a better path toward the goal. If they have succeeded our duty is to tell them so.

There are certain dangers I want to mention in connection with critical supervision. There is an attitude on the part of supervisors, that the best way to assist a teacher who has not accomplished a certain problem is to send her to a teacher who has accomplished the work. This usually antagonizes the poor teacher and sometimes harms the good teacher. It is an easy way out for the supervisor but the poorest method of accomplishing the result. There is no doubt that this method is just as antagonistic as a certain type of inspectional supervision. It makes the teacher feel a certain inferiority complex. The supervisor's position in such a case is to take the situation in hand and give a personal demonstration.

How many of us are able to take a class from our teachers and give a successful demonstration lesson? It is the supervisor's business to show the teacher just where she has failed and then turn to the class and show them and the teacher, how the work should proceed in the easiest possible manner. One need not give the impression that what was done was hopeless, but that more could be done in a more interesting way. Save the teacher's feelings and the interest of the boys and girls. Don't feel that the teacher is always at fault. If critical supervision is to continue, it must constantly suggest a good remedy. That remedy cannot be better done than by the supervisor taking the reins in her own hands, and showing how it ought to be done. She herself will gain the respect of the teachers because she has demonstrated that she can carry out her own suggestions.

This leads to my third type, which I choose to call creative. It is difficult to specify a certain name to any type. By creative supervision, I mean an experimental type of supervision which must come into practice in order to save art education for the public schools. Just as soon as we perform certain experiments to prove and test our position, to enlighten the masses and crystallize our own attitudes, then we shall persuade the thinking public that we are doing an important work for the child and the future citizen.

Therefore, I want to advocate that this creative supervision shall be considered as experimental supervision. We feel we want to find a new solution for an old problem, possibly with the greatest concen-

tration upon the child of average ability. In the past we have made a mistake by having very beautiful exhibitions that didn't represent classroom work. We have exhibited three or four papers out of a room or three or four papers out of the building. If you have a large city to draw from and you collect all of these thousands of papers together, rather than exhibit the work of the child of average talent, your entire exhibit is made up of the work of a few very talented pupils. If you are going to do creative work, you are going to demonstrate to the public that you are meeting the needs of the average child and giving him more than the ability to make something that looks beautiful on an exhibition.

I think we ought to turn our eyes inward to find out whether there is something we can do to improve our attitude toward our contribution to the educative process. If we are really creative supervisors, let us determine whether there might be some weakness in ourselves. If there is something wrong with your lesson, do not blame it on the child or on the school. A supervisor will say, "I do not get very much from such and such a building. You know where it is located, the type of building and the type of child." I have very little sympathy for this attitude. The foreign child from a poor district needs art as much as the superior child from the cultured home. Where contact with the child and his special needs is lost the lesson is a failure. We will fail to establish our place in the scheme of things unless we renew our hope in the potential possibilities of all types.

A new course of study in art for the junior high schools was recently introduced in one of our large cities. At first it was exceedingly difficult for certain teachers to adapt themselves to the changing ideas. They needed new reference material, they needed a new point of view, they needed to keep abreast of the times. But after a few years, the attitude had changed entirely. They became enthusiastic because they discovered they themselves were beginning to grow. Now they are looking for new art worlds to conquer. This is the result of real creative supervision.

To carry out the purpose of creative supervision, one should designate a certain building or a certain room for experimental purposes. Then find a sympathetic teacher. Now you have set the stage beautifully, with a teacher who has an experimental attitude and who is sympathetic with the new idea that you want to develop. Afterward a check can be made to determine the results.

Having selected the teacher and the room or the building, your next step is to disregard your course of study, disregard your old tactics, and find whether you can do the thing in a better way. Certain of my supervisors have selected specific problems for experimental purposes. I want to point out three of these problems.

One of the supervisors carried on an experiment in the first grade

in which she attempted to measure figure drawing. A pre-test was given to these youngsters to find out how they drew. They were told what to draw, but not how to draw. After hearing a little story they were told to make a picture of it. There were no illustrative pictures in the room. Our purpose was to find out how the child drew when he came to school. All these little drawings were taken and tabulated for method. We wanted to find out what our problem was and how it looked to start with, in order to see whether we had the right point of view in our course of study. We wished to develop the best method. To determine this we selected three groups, taking children of the same intelligence, as far as we were able, and of the same grade, giving them three methods of instruction, namely—figure drawing using stick figures, figure drawing using ovals, or figure drawing using the contour method. Then we had one particular group which received absolutely no instruction. No definite form was given to the child but each child was allowed freedom to create his own ideas from his own mind. He may have been influenced through pictures or things he might have seen on the streets, but without definite direction on the part of the supervisors.

A second experiment is as follows: In a third grade room one of the supervisors in presenting our Indian project carried the idea through as we have been doing for years. Every child in the room made an Indian bowl, decorated it with an Indian design; every child in the room made a paper wigwam, partly directed but partly free. We did not go back to prehistoric times. We allowed a certain freedom, where every child perhaps did some clay modeling with Indian figures, and in the end a certain group of children in a room made a community hanging with Indian figures. Every child was keen; every one apparently enjoyed what he had done. Everyone was doing the thing he liked, under the direction of the teacher.

Our conclusions are that this type was particularly successful for the poor teacher and very successful for the teacher who is a poor disciplinarian.

Now, in contrast to this experiment, we would go into the same grade in another building and see if we could present this problem in a different way. This time we would present the subject as an Indian Unit. The unit was presented in the art room. The library teacher presented the proper background, the reading teacher taught the Indian stories, and the music teacher presented some old Indian rhythms. When the youngsters came to the art room, they were so filled with ideas they couldn't wait to get materials and go to work. These were placed at their disposal. At times there seemed to be little discipline in the room but you could not have found a child who was not concentrated on Indian life.

One little girl had made a bowl nine inches high. When I came

in, I said, "Did you make that lovely bowl?" "Yes," she said, "but Jimmy put the design on because he can paint better than I."

A large rug was woven, a wigwam was made large enough for the child to enter, a papoose was made large enough to hang on a tree. An Indian rain god peered from a dark niche, full sized costumes were made and the least talented were able to make beautiful clay or wooden beads.

The result was the greatest enthusiasm I have ever seen on the part of every child in the school. It spread from room to room until the eighth grade boys and girls wanted to know if they could not go to see what was going on in the third grade room.

This is the type of work which I think we should do constantly. If we find the best course for the average teacher, then it is time to go back to our course of study and see if we can make some improvement in the outlines and methods presented.

Now to turn to my own problem in creative supervision. Five years ago in the city of Pittsburgh where we have our magnificent Carnegie Institute, you would find that 499 out of every 500 children had never been inside the Institute during the elementary school period. Wishing to see this splendid building used and its wonderful collections appreciated, I asked if I could not have space in the museum to hold a Saturday class for talented art students. Needless to say they were more than delighted to comply with my request. Twenty-five of the more talented children in the seventh and eighth grades were selected. They came to the museum and formed a nucleus for this experimental work.

I was very much disappointed in the twenty-five selected. I discovered, of course, that it was impossible to pick out the twenty-five most talented children in a city the size of Pittsburgh. Perhaps some of these children were gifted in reproducing pictures. When they came to the museum and didn't have specific training in the old way of doing things, they were quite helpless. I thought the only solution was to enlarge our class.

The following year I accepted fifty boys and girls for the class. But I was again disappointed. Many pupils did not measure up to my expectations of brilliant art talent and I could not but feel there were many talented ones whom we had overlooked.

Then began a series of telephone calls from mothers and teachers telling me their children were better than the ones I selected and begging me to allow them to send one more.

Finally I took one from every school in the city, so that my class opened with one hundred and fifty students. This necessitated quite a change in my teaching technique. The class continued to grow. The next year I had two hundred and fifty pupils and this year seven hundred boys and girls are enrolled.

This is a real problem in creative supervision. How can I adjust my teaching to a class of this size? We used to have thirty pupils to a teacher. Now our numbers have risen to forty-five and fifty pupils to a teacher in the average schoolroom. Of course that is too many pupils to continue in the old technique of teaching, but after the teachers have seen one museum class with an average attendance of four hundred ninety-seven, they do not question the size of their classes. The problem becomes one of changing tactics.

I have an ideal room at the Institute, a semi-circular lecture hall seating about six hundred. It has a low platform, a large drawing board for the instructor. The seats are greatly elevated so that every child has a fine view. I usually draw for them. I have learned most in this world by watching people draw, and I shall always continue to point out to any teachers and supervisors the great value of drawing for the child while he watches. I never have the boys and girls reproduce what I do, but I usually give a demonstration at the opening of a lesson. I believe the students would be quiet for two hours if I drew for them. Such is their interest. Sometimes I say very little while I am drawing. After I have drawn, I talk about the drawing, pointing out the features which illustrate the day's problem. After that, my paper is turned aside. The day's problem is assigned. Then we either remain in the lecture room and draw from imagination or go to one of the rooms of the gallery or museum for our day's source material. We have under our roof a complete museum collection and art gallery including an excellent architectural hall and a sculpture hall as well as a permanent collection of paintings.

I admit that I have the advantage of having such an excellent place to work and the best source material to draw from but I want to tell you that I will always be surprised at the work that these boys and girls do. Their approval of me as their instructor means as much to me as my approval means to them which makes possible so keen an interest. One little boy came to class one day soaking wet. I said, "Why John, how did you get so wet?" "Well, it's raining outside." "How did you get here?" "I walked." He had walked from his home, a distance of four and a half miles, and he had to walk home. Nine miles every Saturday to attend an art class.

That is typical of the interest which these children have in coming to express themselves in their own individual way. One of my teachers who was observing the day's lesson told me that she was sitting beside one of these youngsters and she started to draw what I was drawing. The little boy beside her nudged her, and said. "Can't you be original? Don't you know what Mr. Stephan expects?"

I have brought a few specimens. (Exhibiting them.) Sometimes I suggest a subject to them, sometimes I take them to a gallery for inspiration, but in every case, the drawing represents about thirty

minutes work. It takes about half an hour for the demonstration and the children apply their lesson in the remaining half hour. I feel that you will see how in a big, broad way, they have done these drawings with great freedom, and looseness of technique. This thing, we aim to do in the biggest sense of the word. It isn't so much of a feat to reproduce a bird in the museum but to take this bird and place it so well on the paper that it tells a story of originality of thought and expression is something worth accomplishing. We enjoy good technique, fine draughtsmanship, but if the child is unable to draw well, he may still tell a dramatic story in color and form that is more original than his neighbor's good draughtsmanship represents.

My final plea is this. I hope you will carry out creative supervision or experimental work for the child's sake. We want to save our subject for his sake so the future citizen will not grow up ignorant of this important subject. I believe if you continue to analyze your procedure, your aim and your results, that you will have made the first step toward saving art education for the public schools. We are more than anxious to save our subject for its own sake. The greatest accomplishments of mankind can be measured in the artistic expression of the age.

V. THE RESEARCH CONFERENCES

ART TESTS AND RESEARCH IN ART EDUCATION

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SOME PROPOSED TESTS AND THEIR FALLACIES. Recent research in art education has been much concerned with the problem of tests and measurements. The success of objective tests of aptitude and achievement in other branches of education has encouraged similar ventures here. Several such tests have been worked out on an elaborate statistical basis, backed by institutions of high standing, expensively printed and offered to the teaching profession. Others are on the way. Some are scales to measure drawing and other constructive abilities; others are "preference tests," designed to measure ability to judge art values. The latter usually present two or more variations of a certain art form, such as a landscape, vase, temple, costume, or chair. The person tested is to grade them in order of merit, or to express his preference among the alternatives. His answers are scored according to a supposedly correct list, and his judgment is thus "measured." The "correct" answers are usually decided on, first by taking some art-works of more or less established reputation and then making copies in which details are altered so as to violate accepted textbook rules of good art. A repro-

duction of the original is assumed to be better than the "spoiled" variants. Second, these alternatives are submitted to numerous persons, including presumed experts on art such as teachers, established artists, critics, and the like. A consensus is worked out, usually with greatest weight given to the opinions of the experts. If these disagree much on certain alternatives, other examples are substituted until there is considerable agreement. That agreed-on scale of preferences is then taken to be the correct scale for measuring the judgment of other persons.

The false assumption here is obvious: that consensus of opinion, even among a group of supposed authorities on art, is enough to establish an objective, reliable scale of art values. Few people with any knowledge of aesthetics would come out flatly with such a proposition. But in the language of the researcher it is covered over with a mass of statistics and plausible verbiage. Lip-service may be paid to an open-minded, relativistic attitude, and caution expressed as to the finality of the results.

For example, Dr. McAdory announces the following modest aims for her test, on the first page of her monograph entitled *The Construction and Validation of an Art Test*:

It was the purpose of these studies to construct a reliable instrument for the determining of the consensus of agreement or the order of preference of given subjects and art elements by experts, and for estimating or measuring the differences of agreement of groups and individuals. There are two underlying assumptions on which the items of the art test were constructed: first, that objective things can be ranked in order of artistic merit by a consensus of any group of people; second, that as far as any social group is concerned, its individual members can be ranked according to the degree of their agreement with the consensus adopted.

Nobody could quarrel with these avowed premises. Certainly, people can express their preferences in order of ranking, and a consensus of agreement can be determined among those rankings. This will give no ground whatever for saying that the consensus of opinion is correct, or that the works of art actually correspond in order of merit to the order of preferences expressed. But before very long—on page 20, to be exact, we find Dr. McAdory scoring people according to "their deviations from the correct order"—that correct order being the consensus previously established. On page 27, different sorts of people are said to "rank higher or lower" according to the extent to which they agree with the consensus. And in the last chapter, we find this claim explicitly made: "The test can be used as an instrument for measuring both individual and group ability to distinguish degrees of artistic merit." If it is so used, it is used without any justification whatever.

The same fallacious reasoning underlies the Meier-Seashore *Art Judgment Test*, published by the University of Iowa's Bureau of Educational Research and Service. In a circular advertising the test this definite claim is made: "It does measure the critical factor—esthetic judgment, which is basic and indispensable." In the *Program* of the

1933 meeting of the WESTERN ARTS ASSOCIATION an advertisement asserts:

The Meier-Seashore Art Judgment Test will correctly evaluate a pupil's artistic capacities, his aesthetic sensitivities, his critical capacities.

Such claims are quite unwarranted by the facts. The test does not measure aesthetic judgment, in the sense of measuring whether a person's judgment of art is good or bad, right or wrong. It measures only the extent to which a person agrees with some of the persons whom Professors Meier and Seashore previously consulted. To claim, as further confirmation of the test, that officials and celebrities in the art world are rated highly by it, is merely arguing in a circle, if the original consensus was based largely on the taste of persons of this type and the textbooks written by them.

To assume that a reproduction of a picture by an established artist is necessarily better than an altered variant of it is also unwarranted. Not only may essential values of the original, such as color and scale, be destroyed in reproduction; in trying to make "spoiled" variations of it, the draughtsman often unwittingly succeeds in transforming an academic banality into something more pleasing, at least to persons of radical taste, for its odd and irregular form. A picture which violates textbook canons such as "balance" or "true perspective" may achieve different kinds of value, more attractive to those who like primitive, exotic or modernistic art. I do not say they are right; but the question is debatable in spite of any vote or conventional textbook. One used to traditional styles may perhaps feel a shock of unfitness and surprise on first seeing strange variations of them. But that sort of strangeness and even of disunity are not inconsistent with artistic merit. It is by just such variation of old traditional forms that the evolution of styles in art often proceeds.

If tests of this kind are used in any way which puts a premium on attaining a high score in them, such as receiving promotions, high marks, scholarships or positions, or any other special opportunities or encouragement, the result may be definitely pernicious. They will operate simply as one more means of standardizing public taste—a process which is going on fast enough as it is. They will work to discriminate against the individual, young or old, who for any reason whatever tends to deviate from the established conventional taste of his time. In art if anywhere, conformity to the mass is not necessarily a virtue.

TESTS OF ART APPRECIATION. After this criticism of existing art tests, it may seem that I am opposed to all attempts to grade students' art work, or to study the subject statistically. On the contrary, I do not side with those who would eliminate all grades from art instruction. Nor have I any objection to statistical research within the field of art, when it is done judiciously, with a proper sense of its necessary limitations. Both are useful and can be rightly as well as wrongly done.

In practice, we cannot escape appraising students' ability and accomplishments in art, however much we might like to. As long as any kind of scholarships or awards in art are to be given out, we must decide in some way who seems most worthy to receive them. The whole modern educational set-up of schools and colleges, credits, courses and diplomas, depends on some kind of grading. If any one thing is holding back the extension of art instruction in high schools and colleges, it is the failure of those in charge of it to work out satisfactory modes of evaluating students' work for credit. Works of art are constantly subjected to criticism outside of school, and it is mistaken kindness to train the child to think that his tastes and his productions are somehow sacred and above all negative criticism. Not only the subject of art, but all education and all democracy are vitally in need of more active and intelligent evaluation, to select potential leaders from the mass. We cannot perform this at present with scientific objectivity. But instead of going to the other extreme, let us do more rather than less grading. And when we grade, let us not be content with arbitrary, undefended judgments, but rather persist in trying to think out and express what our standards are, and the reasons for them. We can do a great deal to make our grading more thoughtful, fair, informed and reliable, while recognizing that it must at present contain a certain element of our own personal and conventional taste.

In my own teaching, both of children and adults, I look for certain fairly definite abilities which may be classified under the general heading of "appreciation." I am not primarily concerned with what students like or dislike, find beautiful or ugly in art, or with how they may rank works of art in order of preference. These questions are, I believe, much over-rated in importance at the present time. A person's expression of preference for one picture may be quite insignificant and misleading as an indication of his ability to appreciate art. One person may rate picture A higher than picture B as a result of thorough and sensitive grasp of it; another because of some trivial detail or accidental association. Two persons may differ in their total net appraisal, because of quite legitimate differences in interest and personality; yet both may be on a par as connoisseurs. A child's expressed preferences in art may be due to all sorts of hidden variable factors: to prior instruction, home influence, happy or unhappy associations and the like. All his attitudes are more or less unstable and quickly impressionable. A child of great aesthetic sensitivity may, for one reason or another, develop a strong temporary aversion toward a certain kind of art, or toward all art.

I believe that it is more important to stress, both in teaching and in testing, the ability to perceive form in art, to grasp relations between visible details, to understand associated meanings in relation to design, and to evaluate a work of art intelligently through com-

paring it with others and relating it to human needs, including those of one's own personality. If a student can do these things, I care little whether his likes and dislikes in art are the same as mine. If they differ, I know that he has a right to his opinion, that it is based on a genuine, thorough experience of art and not on some non-essential. These abilities are all present to some extent in young children; they are capable of gradual development and training. Whether they can be quantitatively measured to any great extent I do not know, but it would be a worth-while job for someone to try. Anyone who tries it, however, should keep certain precautions uppermost in his mind. In the first place, he should seek to analyze broad, complex abilities like the ones just mentioned into narrower constituents, or into fairly specific, controllable applications of them. For example, ability to perceive form in art can be divided into ability to perceive different kinds of form, such as linear pattern, color arrangement, arrangement of masses in deep space; and these in turn into still more special abilities. The more we thus subdivide the field of aesthetic behavior, the more it becomes capable of exact observation.

But one can never be sure that the whole is equal to the sum of these parts; in other words, that after studying all the specific constituents which we can discern in a complex process like perception of form in art, we have grasped the nature of the whole. It is therefore especially important for the investigator not to claim to have studied more than he really has. Our situation here is analogous to that of all mental testing twenty years ago. Then psychologists were claiming to have devised tests for "intelligence," for "sanity," for "character" and the like, just as some are now claiming tests for "art judgment." Now mental tests as a whole are much more cautious in their claims. We have specific tests for certain aptitudes and abilities; we claim for them some power to predict success in doing a certain thing under present school conditions. Even if we average together a number of separate ratings, we are hesitant about claiming to have measured intelligence, sanity or character. But at the same time no one doubts that these specific measurements do throw considerable light on the broader questions. In practice the difference may be negligible, but in science we must distinguish as sharply as possible between inferences which are amply justified by the data, and those which are mere presumptions or working hypotheses.

Another precaution is similar: not to make broad generalizations about all humanity, all children, or all children of a certain age, on the basis of inadequate data. Large numbers of cases are no guarantee of safety, even if one has tried to make a random sampling of individuals from different sources. I may study the reactions toward art of thousands of persons, students and teachers, from different parts of the country, and find certain striking resemblances. I may think these

are universal traits, common to persons of certain age or educational levels everywhere and always. Yet as a matter of fact they may be due to some special and peculiar social conditioning. Most of the teachers may have been trained at a few closely related training schools, where a particular method of teaching art is in vogue; most of the students may be working under these teachers. Or outside of school, the influence of some popular mode in newspaper cartoons, magazine illustration, advertising posters, dress or house-furnishing, may be at its height. In America, through large-scale rapid communication, such influences now spread like lightning throughout our hundred-million population, along with jig-saw puzzles, mah-jong and miniature golf, to vanish as fast as they came.

Such facts make it increasingly hard to distinguish aesthetic traits which are superficial and ephemeral from those which are more deeply grounded in our culture, and harder still to be sure that we have found anything basic in human nature. Any research in the nature of mass observation, questionnaire or vote is apt to be ancient history by the time the returns are tabulated. A very few cases which can be thoroughly investigated, and watched under controlled experimental conditions, may yield more valid results. Nevertheless, it may be worth while to study ephemeral or specially conditioned social traits in the aesthetic realm, frankly recognizing them as such, if only to take stock of ourselves as we go along, and to learn more about the influences which produce our fast and sweeping fluctuations of taste. Much of the research which has been carried on in connection with art tests would have been quite sound and valuable if it had been so interpreted: that is, if it had been content to tell us that certain kinds of person showed certain tendencies in aesthetic judgment. This, of course, would have involved an abandonment of the claim to set up a normative test for correct art judgment in general.

What help can research give us in the practical business of grading students' art appreciation work? There is very little help to be had from votes of preference, since they give no ground for rating the dissenter high or low. At most, they can serve to call our attention to the student of exceptional tastes, so that we may inquire what has made him depart from the mass. There is more help to be expected from detailed, descriptive study of various specific abilities involved in art appreciation. It will not of itself give us a scale of values, but it can illuminate the whole problem of grading by showing us more about the nature of the process we are trying to teach and grade; furthermore, it may show us what degrees of ability along certain lines are usual at different age-levels, without special training or as a result of certain training. Hence we may be in a better position to know what to expect of our students. I would very much like to know what can fairly be expected of a ten-year-old child in learning how to grasp a

complex pictorial or architectural form, including the design and some of its cultural meanings. What constitutes average and what exceptional ability for such a child?

There is no space here to discuss the details of method in research. Educational psychology has developed many which are applicable to our field, with modifications to suit the peculiarities of aesthetic phenomena. I see great possibilities in systematic use of the process of ranking, if it is properly used: that is, the process of having different individuals arrange a number of art objects in order on the basis of some definite criterion. The criterion does not have to be so broad and vague as "art value," "beauty," or "what I like best." It can be more specific, such as "extent of color-contrast," "clarity of space-relations" and the like. Such ranking stimulates careful, systematic perception, comparison, understanding and application of aesthetic terms and principles. The results are not only revealing in each individual case, but capable of statistical comparison and correlation, to show the specific ways in which individuals and types of individuals behave, resemble and differ from each other in responding to works of art.

TESTS OF CREATIVE ABILITY IN ART. The situation is similar with regard to grading the quality of students' own art products. We must not expect, in the near future at least, any reliable test or scale for measuring creative ability in art. That ability, though perhaps less mysterious and incomprehensible than we sometimes suppose, cannot at present be objectively recognized or measured. But certain kinds of research could throw considerable light on the nature of creativeness among children, and aid us in judging it fairly.

The wrong way is to arrange a "drawing scale" of pictures of a man, a face or some other object, rated in order from very bad to very good, and then propose that children's drawings be graded by their resemblance to one or another of these examples. It makes no difference how the scale was devised, or how elaborately defended by statistics. The thing is wrong in principle, since it assumes that there is a definite order of values among ways of drawing an object. That the "best" examples are most realistic, or were made by old masters, art academy professors or salon prize-winners, are sadly inadequate grounds for assuming them to be best. At the lower end of such scales there is usually little room for dispute (since the examples consist of more or less formless scrawls.) Among these, superiority consists merely in evidence of a little more control of hand-movements. But toward the other end of the scale the relative values always become increasingly debatable; this example is good in certain ways, that in others. There are any number of good ways to draw a man or a face, each of which may be best for certain purposes. The child who cannot or will not draw realistically, who produces drawings like the "mediocrities" of the scale, may be groping awkwardly toward some highly personal

kind of caricature or stylistic simplification. From a creative and pedagogical standpoint, such an effort may be more worthy of praise than the finished skill of the expert. No single scale of ranked examples could possibly be made which would allow for such cases.

If we wish, on the other hand, to measure some definite, narrow kind of skill, such as the ability to copy accurately from memory a linear pattern one has just seen, that is quite possible and worth doing. Perhaps that ability is a necessary condition and test of all "good drawing," but let us not assume it in advance or confuse the two.

In practice at the present time, I believe there is only one general way to grade students' art work fairly on a basis of creative ability. It requires that the teacher himself shall have learned to appreciate many different kinds of art, including the primitive, archaic and exotic as well as the classical; the childish, naive and unskilled as well as the expert. This will help him recognize many different kinds of value in students' work, and keep him from grading them all in terms of approximation to one kind of art or one narrow set of principles. He should not lay too much stress on mechanical skill, exactness in reproducing nature, refinements of detail or structural unity; these are sophisticated qualities whose presence in children's art is not always healthy, and whose absence is no fatal defect. He must look rather for signs, perhaps inchoate and fragmentary, of vigor in line or color, a fresh imagination, a direct, personal way of looking at things, the convincing expression of a particular theme in design or story, however manifested. One cannot grade examples very closely in terms of such vague criteria, but it is usually possible to put in one pile drawings which definitely have "something to say," some "signs of life"—in another those which are definitely impotent, confused, weak and meaningless, and in a third those which are somewhere between the two.

No one could recognize the subjective, personal and unscientific element in such grading more than I do. Yet I insist, first, that it is a better way to grade at present than to employ some unjustified pretense at a scientific scale; second that it is possible by means of research and careful thinking to increase gradually the reliability of the process. I believe that there is an objective element in the vague criteria just mentioned, and that it can be brought out more clearly through comparison and psychological interpretation of children's art products. Certain German psychologists have in fact made a good start toward doing so; they have published excellent books well documented with reproductions in color of children's drawings, analyzed to show significant qualities and in some cases a given child's development over a period of years. American research could do nothing better than to follow up this beginning.

I would say in general that any formal test of children's creative ability in art should be of the "work-sample" type. It must not call

merely for preference, true-false answers or even completion of incomplete forms. It must give the child a chance to construct a complete, independent form of his own, since his power to do this is precisely what we are interested in. Our problem, then, is first of all to make this work-sample test as revealing as possible; to make it bring out the child's best abilities. It is not enough to say "draw something," for that is apt either to confuse and paralyze him, or to bring out some stereotyped copy of a newspaper cartoon. Nor is it enough to say, "copy this drawing," or "copy this object from nature," for these would not test his imagination. I doubt if any one task, any one art product, will serve to bring out enough different abilities. We should call for several different tasks, each designed to involve one or more of the abilities which we consider essential to good drawing. The tasks should be fairly but not too specific, so as to stimulate a definite quick response and yet leave room for individual variation. They should require no highly specialized training or experience, in which some children might be at an unfair advantage. They should not be too easy or too hard to complete in the time allowed, by children of the age-level to be tested. If we hope to study the results scientifically, the test must be somewhat standardized throughout, so as to eliminate irrelevant causes of success or failure. I mean for example that all children taking the same test should be given similar materials and conditions for work; that the same time should be allowed to all for a given task; that instructions for the task should be similarly worded for all, so that none will have more instructions to work with. Much standardization would be harmful at the present stage; this is no time for publishing broadcast any exact formulation of a test, as American educators are prone to do.

At the Cleveland Museum of Art we are faced each fall by the need for selecting, out of several hundred applicants recommended by the schools, about a hundred for admittance to special classes of talented children. We wish to discover those most capable of doing creative work in the visual arts. Each fall the applicants come to the museum on a certain day for an entrance test in drawing. We try to improve the test each year, but are still so doubtful about its reliability that we maintain an open class to which any child is admitted even though he or she received a low mark in the test. Often during the year such children are found to possess ability, and are transferred to the talented classes. Children taking the test range mostly between nine and thirteen years; all take the same test at present.

The following set of questions is typical of the sort now given. Each is explained further in brief standardized wording. (1) Make a picture of whatever you like best to draw. (2) Draw a picture of a man. (3) Draw from memory a picture of your classroom at school. (4) Draw from imagination "what I would like to do next summer."

(5) Make a design in colors, which could be used for a rug. (6) Copy a lantern-slide of a painting shown on the screen. (7) Draw from a short moving picture of animals in motion. Each of these tasks is allowed from five to fifteen minutes of time, with a short recess in the middle of the morning. The test is given in a large auditorium, each child being provided with a beaver-board, a box of colored crayons and a set of blank papers clipped together. On one sheet is a question-blank to be filled in with data on the child's biography, environment, schooling and art training.

The purpose of the questions will be evident in the light of what was said above. But they are open to much improvement, and are mentioned only as suggestive illustrations of the general approach. If convenient, it would be well to use more different materials, such as paints and modelling clay, to give greater scope for varied talents.

Having devised and given such a test, the next problem is to grade the papers. This resolves itself into a practical and theoretical problem: (1) the immediate selection of a hundred children for the museum class; (2) what light can these papers be made to throw on questions of general scientific interest? For the first problem, all theoretical quibbles are waived perforce, and the decision is left to three presumably qualified judges. But the judging is not wholly arbitrary, for standards and doubtful cases are discussed as carefully as time permits. The papers of each age-level are separately graded into A, B and C groups; then a hundred best are chosen from all the A papers, with age-level taken into consideration.

From the theoretical standpoint, a wealth of possibilities for significant research lies at hand in such a group of papers. We in Cleveland have scarcely begun to deal with them, and I mention a few at present, not with any claim for accomplishment, but in the hope that others may be working along similar lines at the same time. These lines of research are not at all dependent on the use of the particular sort of test I have just described. They could be conducted on the basis of any set of students' art works. But the reliability of the inferences drawn will, I believe, be increased by setting tasks which fulfill the general requirements laid down above.

It may be objected that any kind of set task or controlled conditions, or even the presence of a crowd of other children, will militate against free creative expression. There is much to be said for this objection, and it brings out one of the great difficulties against which our whole attempt at scientific and institutional approach to the problem of creativeness must labor. There are doubtless many shy, inhibited or slow-thinking children—perhaps the best artists of all—who could not do well in any sort of formal test. For that reason I would urge that no such test be made the sole or final basis of selection and grading in practice, and that great caution be used in theorizing on the results.

In practice one should take into consideration the work done by a child alone, at home, or in school or museum under free conditions. But such work is questionable data for scientific study, because of the many unknown factors, such as outside assistance, which may influence it. After all this has been said, I believe that tests and test conditions can be devised which will give a fair amount of scope for most children to display the extent of their talents. Whether they can or not is itself one of the problems which research will illuminate, as we come to compare work done under such conditions with work done otherwise.

A question which at once confronts us as we start to grade the test papers is how to weigh the various tasks in relation to each other. Any answer at present will be mere opinion, based on our views as to what qualities are most important in art. Some years ago ability to copy from another work of art would have weighed very heavily in awarding a scholarship; today one questions whether to consider it at all. In practice at the present stage, all we can do is to test a good many different abilities which seem to be more or less related to the production of art; then average them roughly together as wisely as we can. But from the theoretical point of view, it would be interesting to find how much correlation there seems to be between these different abilities. To find this, rank the answers to each question in a separate series, and find the correlations between the different series.

Much of interest will appear as one studies the different rankings in the light of biographical data. What kinds of art form do children of different ages tend to produce? What changes occur in the favorite subject as the child grows older? At what age does the memory drawing of the classroom begin to contain perspective and deep space composition? When does light-and-shade modelling appear in the drawing of the man? Do girls excel boys in making the decorative rug pattern? Do children of different racial origins differ as to their use of bright color contrast? What effects of previous art training, of home environment, of economic status, of moving pictures, stories, history lessons and newspaper illustrations appear? These are samples of a host of questions on which some definite information is needed.

How are the abilities involved in art construction, such as sensory discrimination, visual memory and perception of symmetry, related to other mental and physical traits? How do art tests correlate with other mental tests? With success in various school subjects? (There is much informal debate at present about the relation of art ability to general intelligence, with a wide divergence of opinion.) What relation have the tendencies in a child's art expression to his physical and emotional growth and stability? What therapeutic value has art study in nervous and character maladjustments? Such questions obviously require a fit-

ting together of the data from art testing and instruction with those obtained by other agencies, such as school and clinical records.

What we can learn about the children themselves from grading an art test is only part of the problem. It is quite as important—perhaps more so—to study the people who do the grading. Art jurors, not only in schools but in museum and other public exhibitions and contests, are usually protected from all embarrassing questions. Like a Roman Emperor at the Circus, they are above all need to defend their judgments. In practice some amount of this arbitrary power is necessary; otherwise decisions would never be made. But special research could throw considerable light on the ways in which our judging of art is done. A group of test papers of the sort we are considering forms an excellent basis for doing this.

The first step is to submit the same group of papers for grading to a number of persons. One may pick all the judges from a certain group, such as art teachers, or one may wish to compare the views of different groups, such as artists and laymen. The grading should be done, not in terms of per cent or any outside scale of reference, but by ranking the papers in order of relative merit. It is well to have each paper stamped with an arbitrary serial number or letter, and to withhold from the judges the name and all information about the artist. Then each judge can arrange the papers from best to worst, according to his opinion. A list can be made of the papers in that order, designating them by their arbitrary numbers or letters. For statistical treatment, it may be necessary to translate such a series into one in which the papers are listed first in some arbitrary sequence (the same for all judges). Then, after each item, put a number signifying the rank in which it was placed by that particular judge.

No amount of research along this line will tell us what the true order of merit among the papers is, even though we find that all the judges or all the experts agreed perfectly on a certain order. But there are other things we can find out. For one thing, we can ask each judge to defend his ranking briefly in words; at least to state why he put the highest, the lowest and the middle one where he did. Such comments are apt to be somewhat inadequate, for most persons find it hard to express in words the reasons for their judgments. Nevertheless, they are often illuminating, and they bring us to an essential point—what standards are being used, and how they are being applied. The gist of the various statements can be noted and roughly tabulated; then one can go on to compare the standards professed by different groups of judges. Agreement in professed standards may go along with great diversity in ranking.

The rankings themselves provide more clearcut and tangible data to work with. It is useful to inquire, for example, about the extent of agreement among all the judges and within various groups, such as

teachers, artists and laymen. This can be roughly measured by finding the correlations between the different lists. It is useful also to have the same judge rank the same papers on different occasions, and to find how these lists agree; in other words to what extent the judgment of an individual is constant. It is sometimes surprising and a little disconcerting to a teacher to find how much his ranking of the same papers will vary on different occasions, for no assignable reason. Do we know our own minds in such matters?

Why is it useful to make such inquiries? Because the extent of actual agreement on art standards and their application is an important psychological and educational phenomenon in itself, aside from any question of what standards are the true ones. Nobody knows at present how purely individual, unique and capricious our methods of grading are in the field of art instruction. It would be significant merely to find out what approach there is to a common group consciousness in regard to art values, and to what extent that consciousness varies among different subdivisions of the American public. The educational world in general, and such officials as college entrance boards, deans and superintendents, would know a little better how to regard grades in art if they knew to what extent art teachers could agree on their verdicts. At present they are apt to regard the whole subject as one where every supposed expert differs from every other. If the situation is not quite as chaotic as this, the fact should be demonstrated. If we can then increase the extent of our agreement through discussion, we shall be in a better position to organize and develop the teaching of art in this country. I am not arguing for uniformity of taste or of standards; let us not discourage whatever sincere and well-reasoned variation exists among us. But if we can come together voluntarily on certain broad aims and flexible standards, that also will have its advantages.

It goes without saying that a great deal of research and discussion would be necessary to clarify these complex issues. But every small study of the sort I am suggesting will help replace guesswork by verified knowledge.

SCIENTIFIC METHOD IN RESEARCH. Who can do research in art education? How much does it require in the way of laboratory equipment and statistical knowledge? The word "research" sounds rather formidable; the rank and file of teachers and supervisors are apt to feel that it is a specialist's job, and beyond their capacities. They are apt also to be unduly impressed by what laboratory psychologists tell them in complicated mathematical terms, even though the psychologist has little knowledge of the practice, history, or teaching of art.

Research in art education and aesthetic psychology may be pursued with any degree of scientific precision, any amount of quantitative measurement one desires, providing only that the method used is

appropriate to the particular problem under investigation. Roughly speaking, there can be three main modes of research in this field at present, each useful in its own way. The first is to measure with numerical exactness whatever can be so measured, with the cautions discussed above. The second is to report informally on one's teaching experiences, on one's personal observations of phenomena which cannot be measured exactly. I have in mind the sort of articles which appear in *Progressive Education*, in *Child Study*, *The New Era*, and the bulletins of the WESTERN and other arts associations. Perhaps we should confine the word "research" to something fairly rigorous and formal; but at the present stage of development such informal reports are often the most valuable of all. And, as I am going to show, they can be made a little more scientific without going to the other extreme. The third type involves cooperation among research workers.

Most informal studies in art education could profit by a little more understanding of the fundamental principles of scientific method, of the logical way to map out and control an experiment, to test and defend a hypothesis. Scattered memories and anecdotes may make entertaining and suggestive reading; but if a teacher aspires to contribute something a little more reliable, she must organize her teaching and her observation along some fairly definite line. Let her select a few clearcut objectives which she will work toward throughout a certain year or series of years, and a fairly definite, consistent method and set of materials for achieving those objectives. After trying out these methods for a sufficient time, with a sufficient number and variety of pupils, let her tell the rest of us what she thinks her results have been and why. Many progressive teachers experiment too much, are constantly changing their methods, taking up each new device they read about, with the result that their experience at the end of a year or a lifetime throws no definite light on the value of any of these methods. Many claims to have discovered an important fact about children's preferences, or a fine new method for stimulating creativeness, fall to the ground because the situation has been incompletely analyzed from a logical viewpoint. We are not told, perhaps, whether the group of children was a highly selected one, so that home advantages or general high mentality, rather than the particular teaching method used, may have been the cause of success.

In a certain problem it may be quite unnecessary ever to work out a statistical correlation; yet it may be highly important for the investigator to have the principle of correlation constantly in the back of his mind. For example, one can be on the watch to see what other factors in children's lives appear most persistently to go hand in hand with interest in art. Does home encouragement seem to be a necessary and sufficient condition for the maintaining of that interest? Is there a correlation between such interest and success in other sub-

jects? To show that a certain teaching method is to be credited with stimulating interest, one should be able to show that the interest rose and fell along with the extent to which that method was practiced, *while all other factors were kept comparatively constant*. Yet such a concomitant variation could never be exactly calculated, for there is no objective measure of interest in art. One can only observe the expressions on children's faces, the tones in their voices when one activity or another is in process; their eagerness to stay in after school, to come on Saturdays, to follow up at home jobs begun in the classroom; perhaps to walk several miles to attend a museum class, when carfare is lacking. Significant data in research of this sort are general health, vitality and vivacity, an eager or bored attitude, a prolific ease or difficulty in production, shifting or fixed attention, the quality of art objects in the home, and others quite as intangible. Yet the scientifically trained mind can observe them with care and system, noting apparent connections among them, and trying to arrange things so as to bring out persistent correlations.

Simple statistical devices can sometimes be used to advantage in such work, without making a fetish of them. The careful investigator will keep mimeographed blanks for detailed case histories and day-to-day observations. He may tabulate, at the end of a year, the comparative frequency of recurrence of certain behavior traits. He may even show numerically that certain variables are more highly correlated than others, within the data thus far collected.

In short, I am trying to emphasize the point that research can best progress within our field, at the present time, through a *middle course* between informal, "subjective" observation and exact measurement; with a steady pressure toward the latter, but no disposition to hurry into premature attempts at exact science. This middle course is not now being followed, to any considerable extent. Instead we find, as a rule, one extreme or the other.

Assuming a moderate amount of scientific method, there are plenty of vital issues in art education on which we can profit from investigation. No one knows what methods or materials are best suited to achieve the ends we desire. I suppose there is a certain amount of agreement in ultimate aims, among art teachers who subscribe to a progressive philosophy of education. We want to stimulate and sustain an art interest in students of whatever age. We want them to enjoy and appreciate past works of art, and to make some kind of art expression for themselves. We want their art interest to last over through later childhood and adolescence into maturity, and not die out as usual at the age of eight or nine. We want their art activities to be, not isolated skills but parts of a general healthy vitality and growth, mental, emotional and physical. We do not try to make our students

produce or like only a few narrow kinds of art, but to develop some catholicity of taste and versatility of expression.

Even though we agree on a few such fundamentals, there is infinite room for experiment on ways and means to achieve them. What should be the relation between this general aesthetic growth and the acquirement of specific techniques in art? Between both and other subjects in the curriculum? Between various age-levels in art education, so as to produce continuous development? Some of us think free expression is best at all age-levels, some favor introducing more set tasks and disciplines as the child grows older. Some of us favor a close relation between art appreciation and the practice of art, while some would conduct them separately. Some would emphasize painting and sculpture, some the handicrafts, and others the art element in modern industrial processes. Some would expose the child from the start to many different historical styles in art; some would bring them to his attention at different age-levels. Some of us would teach the visual arts along with literature and music in close coordination, while others would teach them as separate subjects. Some of us favor the project method in art, while some would teach in chronological order. Some would merge the whole subject of art in an "integrated curriculum," while others would maintain its separate identity.

As to all these possible alternatives, there is no way as yet of proving definitely by any sort of research that one is better than another. Probably each has its values under certain conditions. But there is urgent need for the accumulation of definite, tested, controlled experience with them—not vague impressions and guesses—which will help us decide which ones are best for which purposes.

The third kind of research which I have in mind would be a more cooperative approach to these same problems, to be conducted by organized groups of workers in the field, such as the WESTERN ARTS ASSOCIATION and others of the sort, or by foundations working with a group of other institutions. Present research and experiment in art education is now too sporadic, isolated and haphazard to get very far. Consider the way in which the exact sciences conduct their mass attacks throughout the world on problems recognized as crucial—the nature of the atom, of cancer, of biological inheritance. Vast problems are divided up; it is announced that certain individuals and institutions are working on certain aspects; the results, as they proceed, are made known to all the rest and constantly fitted together. Learned bodies of scientists sponsor such cooperation, and supervise it by delegating special committees for the purpose. In the educational field itself, it is coming to be more and more the practice for a certain school or school system to be recognized as trying out some definite method or type of curriculum—the integrated curriculum, the social science emphasis, or what not. The results are more or less carefully

checked up at intervals, and the whole educational world profits by them.

Under the auspices of a group like the WESTERN ARTS ASSOCIATION, with a small responsible committee in charge, a similar policy could and should be followed out. For example, it would be well if a certain school, school system or museum educational department would agree to make a fairly thorough trial, over a few years, of some one definite method of teaching art—let us say a comparative, joint approach to the visual arts along with music and literature. Let other places embark on similarly definite experiments. If there is some duplication, no harm is done; but let us try to see that a good many different methods and kinds of material are tried out. Then let the committee see that observations are kept and tabulated with some degree of care and uniformity, and that each of us is kept informed, through bulletins and monographs, of what the others are doing.

CHILDREN'S RESPONSES TO EXPRESSIVE LINES

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I selected this topic to talk upon with the expectation that it might serve to illustrate one or more of the points which Dr. Munro would mention in his paper. After hearing his excellent discourse, I may liken my talk to one of the scenes suggested in his full-length feature—one of the scenes from the section on suggestions for the classroom teacher, wherein the classroom teacher or supervisor attempts to study aesthetic appreciation and at the same time provide the student with a similar experience.

In order to vary the usual procedure of merely telling you of this study, I am going to ask you to participate in the same manner as did the children whose reactions were studied. Your participation will be the best way to illustrate the technique employed. We will follow the procedure which was evolved after the preliminary study in which over one thousand children and adults took part. Most of the children were in the three grades of junior high school.

In a brief introduction as to my purpose, which was to get information as to the ways in which people look at pictures, I showed them a picture and explained that we may look at pictures in various ways. For example, when you first looked at this sea picture, you may have definitely liked or disliked it. Perhaps as you continue to look at it more closely you may feel different from the way you felt just before you saw it. Perhaps it makes you feel excited, happy, restless or cool, the way the artist may have felt when he painted it. If you ever had a friend who went down at sea, to look at such a picture may make you feel sad. You may merely like or dislike the picture, or you may get a more definite feeling of some kind. This picture may mean adven-

ture, romance, bravery or something else. It may suggest something that is entirely outside the scene as a picture at home, a scene with which you are familiar, or a story you have read. You may think of the picture itself, the color of the sky, the composition of the study, the color scheme, the shape of the boat, the lines used, or the tone. Each person here may look at this picture and be affected by it differently, either through his sensitivity or feeling, his imagination, his knowledge, or his analysis of it. Each person is looking at, and reacting to, the same identical thing—lines, forms, and colors placed on a flat surface.

My interest at present lies in your reaction to any one of these things in a picture and in particular to the lines of it. This chart will illustrate my present interpretation of lines. In each succeeding illustration the subordinate lines have been omitted until the basic framework remains. These basic lines are probably those with which the artist started his picture, the lines upon which he built. We can take nearly any picture and make tracings of it in this same manner and find the principal leading lines. I am going to show you next the leading lines that have been taken from several pictures. I am wondering how you will look at them—whether or not you will look at them as you do at a picture. Will you like some of the lines and dislike others? Can some lines make you feel one way and others a different way? Can certain lines mean one thing to you and others suggest something entirely different? Do lines have certain qualities?

In order to get your answer to these questions I have given each of you an answer sheet containing the questions with a few suggestions. I will read the directions and show you the charts.

ANSWER SHEET FOR CHILDREN'S RESPONSES

Name	Position					
	Chart I	Chart II	Chart III	Chart IV	Chart V	
Question No. 1						Write Number Only, 1-6
Question No. 2						7-12
Question No. 3						13-18
Question No. 4						No, or what it is
Question No. 5						No, or Yes

Write Comments on reverse side.
Please fold and tear along this dotted line.

.....

Directions to Pupils

You will be shown five charts, one after the other.

FIRST: Answer Question No. 1 below, about each of these charts. To do this, *choose* the *number* of one word from those numbered 1 to 6

which tells *best how* the lines *seem* to make you *feel*. Write just the *number* of this word, on the first line of the answer sheet. All answers to the first question about charts I to V go on the first line. Note: Cover questions that you are not answering.

SECOND: You will be shown the five charts again in the same order. Then answer Question No. 2 about each of them as they are shown, selecting the best word from No. 7 to No. 12 and writing *only* the *number* of that word on the second line of the answer sheet.

THIRD: When you are shown the charts a *third* time, answer Question No. 3 about each one, selecting from No. 3 to No. 18 and writing the number on the third line.

LAST: Write answers to charts No. 4 and No. 5 on the fourth and fifth lines.

Question 1: *How* do the lines seem to make you *feel*? (Select one.)

1 Called. 2 Playful. 3 Calm. 4 Busy. 5 Costly. 6 Upright.

Question 2: *How* do the lines seem to *look* to you? (Select one.)

7 Wavy. 8 Flat. 9 Mixed up. 10 Last. 11 Stiff. 12 Fond.

Question 3: What do the lines seem to *say* or *mean* to you? (Select one.)

13 Calmness. 14 Disorder. 15 Value. 16 Stateliness. 17 Numbness. 18 Gracefulness.

Question 4: Do the lines seem to *make a picture* for you? Write "No" —or, if the lines do *make a picture* for you, tell what that picture is, in a word or two, in the proper space on the answer sheet.

Question 5: Do you *like* the lines? Write "Yes" or "No."

To return now to the beginning of the study, the first step was to select a number of pictures in which there was a dominant direction of lines. These were reduced to principal leading lines. Next a number of descriptive words were secured from various writers on art and aesthetics, also from Webster, Thorndike, and others. These words were grouped under questions which cover the outstanding reactions to pictures. Both the drawings and the list of fifty words under each question were mimeographed and given to each child for a response. This individual approach was found to be unsatisfactory, so that the procedure we have just followed was evolved.

The biggest problem seemed to be with the words used: there were too many in the list, many were not understood, and many were not selected. The list was reduced and revised. A vocabulary test was given. The order of the questions and presentation of the charts was changed.

The final results were secured from 135 children in grades seven, eight, and nine, and from 100 third-year normal school students. The responses to the first chart are not listed, inasmuch as it was considered a trial. The columns at the left represent the reactions of 135 junior high school children. Those at the right represent the reactions of 100 college students.

	Chart II—Horizontal		Chart III—Oblique		Chart IV—Vertical		Chart V—Curved	
	Jr. H. S.	College	Jr. H. S.	College	Jr. H. S.	College	Jr. H. S.	College
How do the lines seem to make you feel?								
called	12%	4%	8%		8%		12%	4%
costly	4	84	12	4%	8		32	16
calm	56	4	8		16		12	8
busy	12	4	44	56	12		16	4
upright	4	4	4		44		4	
playful	12	4	24	40	12		24	68
	—	—	—	—	—		—	—
	100%	100%	100%	100%	100%		100%	100%
How do the lines seem to look to you?								
last	8%		4%		12%		4%	
fond	8		4		20		12	4%
flat	44	80%	4		12		4	
mixed up	4		80	96%	8		4	4
stiff	8		8	4	44		4	
wavy	28	20	4		4		72	92
	—	—	—	—	—		—	—
	100%	100%	100%	100%	100%		100%	100%
What do the lines seem to say or mean to you?								
value	4%	4%	4%		12%		8%	
numbness	8			8%				
calmness	64	88	4	4	4		4	
disorder			84		8			
stateness	12	8	92	68	52		12	8%
gracefulness	12		4	16	24		76	92
	—	—	—	—	—		—	—
	100%	100%	100%	100%	100%		100%	100%
Do the lines seem to make a picture for you?								
No	26%	8%	40%	12%	40%		42%	22%
Yes	74	92	60	88	60		58	78
	—	—	—	—	—		—	—
	100%	100%	100%	100%	100%		100%	100%
Do you like the lines?								
No	14%	28%	66%	52%	38%		22%	16%
Yes	86	72	34	48	62		78	84
	—	—	—	—	—		—	—
	100%	100%	100%	100%	100%		100%	100%

The results show decided trends. The children did respond to the various qualities of lines. The question of feeling seemed to cause the greatest difference of opinion. It was probably the most difficult to answer. The question on the meaning of the lines is probably the best. It involves all of the other questions to a greater or lesser degree, since it implies a certain sensitivity of feeling, imagination, and understanding.

The oblique lines seem to be the least liked. They also seem to be least suggestive of definite pictures. If agreeableness and pleasantness accompany appreciation, it may be said that most of the children appreciated all of the lines except the oblique ones. These lines lack the one element of beauty which the others possess, namely harmony of direction. Of importance also were the visible and audible expressions of the children as they viewed the charts. Originally, oblique and other kinds of lines had been used in the first chart. This chart caused considerable laughter. When vertical lines were substituted, the reactions became more quiet and reserved.

To summarize briefly, the most important point brought out is that direction alone gives distinctive qualities to lines which children of junior high school age are able to recognize without previous instruction. The technique used in this presentation may be used as a means of developing a sensitiveness to art material as well as in gaining information. It may be used in teaching expressiveness. The children's interest was evident even though the material was of a more or less abstract nature.

This study may be looked upon as a starting point for further research, or it may be considered as a typical problem which may be carried on in the classroom. It would be well to find out if similar results could be obtained by using different compositions of lines; by exposure of all of the charts simultaneously for comparison; by using lines in varying degrees of abstractness ranging from the purely realistic to the totally abstract; by employing different methods for securing responses; by using masses or colors with the same or similar vocabulary.

The accompanying learning and growth for the teacher and students in such a study are probably of more real value than the specific facts gained.

STUDIES IN THE HISTORY OF ART

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The History of the Fine Arts early found a place of recognition among the cultural studies. The respect paid to artists of still greater antiquity by ancient writers such as the Plinies and Lucian, was carried

over into the age of Renaissance learning, to culminate in the overstressed abundance of Vasari's utterances. This sixteenth century biographer, as uncertain and unreliable as many of his writing have proved to be, did, and does to this day, serve as a powerful agent in interesting students in the actors who have played their artist roles in the pageantry of the past. In Vasari's trail have come numerous other biographers and pseudo historians who, hand in hand with poets and essayists and fiction writers of romantic tendencies, have ushered into the Parnassus of the intellectual elite the laurel crowned Muse known as Art History, there to claim an honored seat on the exedra reserved for the academic gods. Because of the variety and dubious repute of some of the noisier and more brilliantly attired attendants, full welcome has not always been extended to this Muse of Art History—a Clio trained by Athena and Apollo. Some of the other Muses have looked aghast and murmurs have not infrequently been heard as to the rightful place of this rosy hued intruder. The one point which I would rest content upon making this morning, is that the Muse of Art History has full right to the ever more exalted place which she seems to be accorded in the Court of Cultural studies; at the same time I would like to sound forth a note of warning against the motley crowd of followers who often with the best and most sincere of motives in their intent, threaten to dethrone our Muse.

The problems in the teaching of art history arise from the very breadth and magnitude as well as the minuteness of detail in the subject itself. It is a subject of unlimited scope and yet one that requires all the capacity for concentration that any exact science demands. Until comparatively recent times few, if any, of our American institutions of higher learning offered studies for training the art historian. With all due respect to the classical scholars and the great contributions that they have made to the field of art history and its valued lieutenant. Archeology, the professor of Greek and Latin was usually little prepared to teach the art even of his own classical periods and usually only consented to do it when the subject was thrust upon him by the pathetic want of students in Greek and Latin classes of our elective curricula. On the other hand, the technical professors—architects, sculptors, and especially painters—found their training even more pathetically inadequate to present so large and comprehensive a subject as art history. They usually entered the banqueting hall of this feast of learning, through the scullery or kitchen and found themselves ridiculously inappropriately garbed and often reeking with the odors of the garbage of their own special craft. A small group of men of a literary trend, well schooled in philosophy and general history, and with a special flair for expressive beauty, dilettante as their own efforts may have been, seem to have made a greater contribution in the field of teaching the history of the Fine Arts. They usually entered

the field through the gateway of art criticism and their work has not always been destructive, although a good husbandman of the field might justly say that far too many paths had been worn across his meadow and far too many flowers plucked and cast aside or woven into wilted wreaths of "In memoriam."

Of these three groups responsible for the teaching of Art history, the old classical scholar, the technical artist, and the art critic, it is the latter, who has been most regarded. The regard and respect paid to the art critic has in itself been fraught with danger. Considerable confusion came between so-called art appreciation and art history. When the critic or exponent of so-called Art appreciation took the time and underwent the pains to master some portion at least of the history of the Fine Arts, he found an aid of unusual power. Too often, however, courses in Art history were attempted by the dilettants who were at best only prepared to offer some slight, though highly colored, view of the subject. The method was simply to follow some outline or text without ever having seen the original of the art presented and often with very little realization of what it was all about. This led to the presentation of the subject as a collection of names, often mispronounced, and meaningless, except possibly as labels upon cheap print reproductions. Fortunately there was not much opportunity to offer courses in Art History in the elementary schools. In colleges, the students were more often exposed to such courses and "took" Art History very much as one took mumps or measles with slightly less discomfort and slightly more distressing results.

The creative artists—architects especially, but sculptors and painters as well; cured by the overdose of eclecticism of the nineteenth century, looked upon art history as a possible handicap to originality and self-expression. This was obviously because of the way Art history had been taught. The wholesale and often ridiculous cribbing by American architects of European monuments to meet entirely new needs, was not because of a knowledge of Art history, but because of all too little knowledge of Art history. The architect who had more than a superficial knowledge of Greek temples would certainly never have used that form for the Main Street bank or permitted the treasure houses of Delphi to spawn in Green Lawn Cemetery—not knowledge, but the little knowledge was the curse of art history in our academic art training.

In spite of all the hindrances and perils that endangered the entrance of the Muse into the present realm of cultural studies, the interest in Art history seems to have spread rapidly—Harvard, Princeton, New York, and other universities have developed its field of graduate and research activities, thus providing teachers who are capable of offering the subject with all its wealth of possibilities. European training with intimate contacts with the artistic heritage of this present

day of western civilization became a prerequisite. The World War, in spite of all its destructive elements, did, for one student generation at least, bring about a familiarity with certain phases of European life. Even from the hodgepodge of Versailles there came a certain world consciousness that destroyed the provincialism of art students during the last decade.

The present student generation is beginning to tap the vast sources for such studies with a vigor that makes any attempt to keep apace with it rather baffling. The classic field of Greek and Roman studies is still an amazingly rich one. The archeologists take the lead, as at Athens, Corinth, and Antioch. The classic world of Greece and Rome has been extended, expanded in all directions, and over a far greater period than was even dreamed of by that most practical and effective of dreamers, Herr Schliemann. By the intensive work at Knossos alone, Sir Arthur Evans pushed the records of pre-Homeric civilization back for over a thousand years. The proofs he presented were objects of art. Crete proved to be a strong connecting link with Egypt. There is no need to call to the attention of this audience, the remarkable discoveries that have been made in the valley of the Nile within the memory of us all—discoveries that have caused the rewriting of the history textbooks and necessitated the reorganization of outlines for the study of art. The successes of the Egyptologists are stimulating the interrupted explorations further east—in Palestine, in Mesopotamia, in Persia. Archeology no longer means only the field of antiquity. Recent years have contributed much to the field of medieval studies with art as the compelling incentive. It has been found by curious and ambitious students that the secrets of Renaissance art were revealed only in part by such thorough scholars as Symonds, or Brinton, or Berinson. This field may still be tilled with sure promise of even greater interest and artistic significance.

With all these fields of investigation the teacher of art history must be familiar—not perhaps with the degree of scientific exactness expected of the archeologist, but with a broad capacity for evaluation. All fields of historical research are interdependent in as much as they are productive of the common element of beauty. As a resultant of the numerous factors of influence, physical and spiritual, geographic, climatic, geological, social, political, religious, even the simplest pattern woven in the crude fabric of a Hopi Indian's blanket may be correlated with the sophisticated fret carved in Parian marble on an Hellenic altar. If this suggests a too vast and all-embracing study to be brought within the control of effective pedagogic dictates, the inference is intentional to emphasize the responsibility placed upon all who deal with studies in Art history. This responsibility calls for an airplane perspective which, when the occasion demands, may be exchanged for

a microscopic inspection—even introspection for the immediate problem.

However one may regret the passing of an old order or the introduction of a new political regime of dubious social value, as an art historian one can but delight in new possibilities of study and research, of new records and treasures brought to light, of new conclusions that only the trained student in the arts can safely make. I need not mention the opportunities of studying formerly little-known artists and little-understood epochs of art afforded by the new Soviet regime in Moscow and Leningrad, by the Republican inventory of the art treasures of the late royal palace at Madrid, by the sensational restoration of imperial Rome. The universal language of art becomes the means of recording by the art historian of truths vital and convincing in a greater world of knowledge.

Nor do our students necessarily have to go far for the material for studies in Art history. Every community provides its own subjects. Here in Ohio where conditions are doubtless rather typical of other states as far as local historical material is concerned, there are the Mound Builders, early handicrafts, Greek revival architecture, ceramic development, individual artists, painters, sculptors, architects, quite enough for any enterprising Vasari.

Any teacher concerned with stimulating new interest in the arts may do well to turn the attention of students to such local problems of Art history research. The camera has made records accurate and inexpensive. Sketches and measured drawings make excellent problems integrating the technical work with the historical studies. Many of the excellent specimens of early American architecture have been forever lost because there was no recording hand to preserve them, even in graphic form. Such an interest has often awakened a realization of beauty and a pride of possession which has eventually led to the preservation of the monument itself. Every passing year brings an added interest and so a greater historical value to enrich a town or community. The investigation and historical study of artistic handicraft bring valued interest to industries of many kinds, as well as form an intimate record of social progress. Through such records, handicrafts, which in these days of forced unemployment are offered as one of the practical solutions of the problem of leisure may be kept alive. Studies, too numerous to mention, arise with such a consideration of the study of Art history.

More important than any specific problem in the study of Art history is the opportunity the subject offers to the art student for a rational, systematic approach to the arts. That even the most spontaneous emotional art is a result of cause and effect; that no artist can escape the influence of multitudinous factors of inheritance, makes more and more necessary the facing of old facts in preparation for the

dealing with new factors. Studies in the history of art that develop clear, logical thinking and evaluation of the many factors in the complex equation will not fail to produce a more correct solution of the unknown x of beauty.

Since beauty is the result of so many factors, the Art historian must relate and correlate his studies to every subject in the curriculum. He must make his art evidence serve not only in the social science to which it is most intimately connected, but in general science, mathematics, language, literature, music, dramatic and sports. Art that deserves the name has always been and must ever be a vital part of everyday life and action. Dealing with such material the Art historian has few limits to his studies. The day may be approaching when there will be no art teachers as such in our model schools, but each and every teacher will be so trained and so conscious of artistic factors that the student seeking a creative release may be directed or guided. For the teacher unskilled and without technical art training, the study of art history may offer such necessary equipment.

In Ohio we have perhaps been unusually fortunate in the manner of vigorous new museums with the treasures they are gradually collecting and the fine educational programs they are promoting. Upon museums and libraries the studies in Art history must largely depend for tangible source material. But it seems to me that the Art historian has a far greater task than merely the accumulation and correct cataloguing of art treasures, as valuable as that work may be. It is the Art historian's larger task to interpret, to absorb the beauty of the past with its fullest significance into the thought, the philosophy of his own time, helping to make as best he can, the wealth of the past the unfrozen assets for new investments. The assets may be tabulated to display an impressive list of real educational wealth if Art history studies are appraised at their true values.

First, there is for the art student, the broader cultural knowledge upon which the artist of the future can and must rely. Past is the day, if such ever existed, when Art education was merely a matter of craft technique. In the study of Art history, it does not mean simply the collection of encyclopaedic knowledge as much as the use of facts for the foundation of theory. This leads to the

Second, asset which is the training in organization of factual material as evidence for proofs of civilization.

Third, on the credit side of the art student's ledger are grouped entries of numerous accounts of endless details—items which in themselves, may be of small significance, but, which, added together, may in their plus and minus summation total striking values. One of the great problems of the Art historian is the selection and emphasis to be made of such material. The disrepute into which Art history of the

palatable pink tea or tabloid variety has too often fallen, is the use made and emphasis placed on some of this superficial wealth of detail.

A *Fourth* item may be considered as keys to safety-vaults stored with the treasures of the past. Here our overworked metaphor should be discarded, for hoarding has no place in our scheme of studies. The treasure still remains no matter how frequent the withdrawals. Only by trying the keys and unlocking the treasure of the past can the wealth be realized. This is the duty and privilege of those directing the studies of Art history.

The itemization might be continued but I fear to weary you with a repetition of the obvious. Rather may I close with a fragment from Vasari's tribute to the historical knowledge of that recognized artistic genius of all times, Leonardo, the Florentine, who

stood in a way above the ordinary antithesis of love and hatred. He loved because he knew and understood. Nothing was hateful to him, because he recognized that hatred meant only the lack of deeper knowledge, for love is the daughter of knowledge, and love is deeper in measure as knowledge is more assured.

OBJECTIVES VALIDATION

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The study of objectives is the first step in the building, or continuous revision, of the curriculum. Not until the immediate and long-time aims are established or verified can the curriculum maker proceed with the selection and organization of subject matter and activities through which objectives may be achieved. It has, of course, been necessary to carry on educational work without adequate knowledge of many objectives about which the educator would like to know more. Much intensive work is being put on the solution of this basic problem.

DEFINITION OF OBJECTIVE. Many definitions of the term *objective* have been made. That given by Harap, pp. 27¹ is typical, and is used here simply as an example, without critical analysis. He says,

An educational objective is a specific goal, useful in life, to be achieved by education. It is the usable achievement which should result from one unit of school work. It is what the pupil should be able to do, to know, or to be, as a result of a given amount of learning.

This definition should not be construed to refer only to those detailed and immediate objectives such as the mastery of the table of fives, learning the causes of the Civil War, or of learning how to be polite when answering the telephone. It applies, if it is a good defini-

¹ Harap, Henry. *The Technique of Curriculum Making*. New York: The Macmillan Company, 1931. xi, 315 p.

tion, to the larger outcomes, or long-time aims, which in their summation constitute the good life.

DERIVATION OF OBJECTIVES. We are concerned here with the origin of objectives, since this is allied or even identified with their validation. How is an educational objective determined? Bode pp. 224² states, "One fundamental principle . . . is that the curriculum (based on objectives) must be the expression, or embodiment of a social program." In its broad aspects, the determination of objectives is the work of the philosopher, whose work concerns the interaction of judgments of ends to be achieved with knowledge of a means for achieving them.³ Obviously, only the greatest erudition and maturity of thought can produce that "subtle distinction between knowledge and wisdom" which is necessary. "For the basic insights and attitudes we must rely . . . for the statements of the goals of education, upon human judgment"⁴ Rugg pp. 82. This may be the judgment of some recognized seer⁵ or the pooled opinions of frontier thinkers.⁶

A second major source of objectives, usually of a more immediate nature, is the scientific analysis of human activities. Many studies have been made to learn just what we do, so our learning might be directed toward doing it better. To this method have been brought all of the scientific techniques of modern educational research. Not only are specific objectives so obtained, but studies of social trends and human capacities provide the philosopher with needed data. There are those who believe that all educational problems can be settled by such scientific methods. Comparison with scientific methods in the physical sciences shows that the ultimate solution is never in sight. No matter how far the frontiers of knowledge are pushed back, new and heretofore unseen problems present themselves for solution.

Whereas the philosophic method of determining objectives gives direction without exactness of detained objectives, so the scientific method provides the immediate specific objectives, but in itself lacks a sense of direction. Bode⁷ pp. 222 says,

² Bode, Boyd H. "Determining Principles of Curriculum Construction." *Educational Administration and Supervision*. April, 1926. 217-228.

³ Dewey, John. *The Quest for Certainty*. (Gifford Lectures, 1929.) New York: Minton Balch and Company, 1929. 318 p.

⁴ Rugg, Harold. National Society for the Study of Education, Twenty-sixth Yearbook, Part I. Bloomington: Public School Publishing Company, 1926.

⁵ e. g., Dewey, John. *The Way Out of Educational Confusion*. Cambridge: Harvard University Press, 1931. 41 p.

⁶ e. g., Warner, William E. *Policies in Industrial Arts Education*. Columbus: The Ohio State University Press, 1928. xii, 90 p.

⁷ Bode, Boyd H. *op. cit.*

The big question in education is the question of direction. A program merely lays down a guiding principle. In order to apply the principle to practice, much remains to be done, and it is here that scientific methods and procedure become indispensable.

THE QUEST FOR CERTAINTY. The educational world is forever seeking certainty in its efforts. Perhaps, as Dewey concludes, this can be found in pure knowledge alone. Practical action at once introduces the element of uncertainty which is unavoidable. It is not to be expected, therefore, that objectives can be settled for any length of time, yet the educator recognizes that all activity must have intelligent direction which will give a degree of certainty only by constant checking. In other words, objectives need constant re-evaluation in order to be considered valid. Educators tend to promote and defend ideas rather than to study their validity.

VALIDATION. This brings in the process of validating, or testing the worth of objectives. The good life to the Egyptian farmer, the Roman soldier, the medieval churchman, or the modern banker, have been far apart. Social values change, and with them (although lagging) the goals of education. Consequently, if education is to fit one for optimum participation in, and enjoyment of society, objectives must be validated in terms of their identity with living values.

In substance, validation employs the same processes in proving the worth of an objective as those by which the objective was originally determined, viz: (1) the construction of a supporting philosophy, (2) research, to give concreteness and certainty of effort, and (3) a statement of a definition. To validate an objective is to examine each of these factors critically and to re-establish them if necessary in terms of the improved knowledge about them.

The critical examination applied to a given objective may consist of testing it in terms of selected criteria. These criteria are of such a nature that some of them must be forever subjective measures; others, in increasing degree and number, are yielding to more scientific techniques. The number of these criteria is probably infinite, varying with the nature of the objective itself. Their selection may, in time, become a matter of definite assured execution; for present purposes, however, a few are selected by empirical methods for consideration.

CRITERIA OF THE PHILOSOPHY OF AN OBJECTIVE. By its very nature, the philosophy supporting an objective must be examined largely in the light of best judgments; a few objective measures may be applied.

1. Does the objective point to outcomes of social worth? The value, or worthiness of any form of education is necessarily based on social values, either "explicitly determined, or explicitly assumed." While the ideals of education change from age to age, from era to era, or from social class to social class, the standard of social worth as it is best conceived must be a constant criterion.

Social values—things worth while—are of a multitude of kinds. Many of these are simply stated as everyday desires or needs; some as future needs, or extensions of the individual's environment. These may be listed impartially, good or bad, by activity analysis. Others are of a more complex form, or of a broad and far-reaching nature, which may be stated only by the deepest thinkers.

At this point education must depend on the scientist and philosopher to help determine and define what is worth while. There is no assurance in present literature, that even with the best of these there can ever be general acceptance of such judgments or scientific findings. However, we are gradually building up evidence which makes us more certain about some of the things worth while. Objectives need to be subjected to the criterion of social worth as we know it.

2. Is the concept of the objective an adequate one? Single ideas, representing a narrow viewpoint, are sometimes used for the guidance of a major line of work. Industrial Arts, for instance, has lived through many of these: training of hand and eye, development of mechanical intelligence, exploration, or training for "handiman" activities. While this is, in a sense, a criterion of the application of an objective in practice, it is one of the questions which must be answered in its evaluation.

3. What is the relative worth of the objective? Snedden⁸ pp. 587 points out, that, "To define or measure social values essential to civilized societies carries us only part way toward determining educational values. Here, the problem is one of *relative value*." These are, as has been indicated, variable in community, era, and individual. One must try to answer the question of what and how much education in a given area is most worth while to various age groups, social classes, or ability levels, toward making them optimum members of different possible forms of society, under variable and uncertain conditions.⁹ For example, is an objective having to do with the development of a specific type of manual skill as important for a dull individual in a wealthy urban community as for an average individual in a neglected rural area? While, as we know the facts, it is not possible to apply scientific techniques to many such questions, their answer is one which must be made with the best judgment and methods available.

The question of relative values also arises between the learner's apparent immediate needs, and education for later life. Both factors are necessary, but the curriculum maker is constantly faced with the necessity of deciding how much of each should be included in his program. Here again, it is not possible by known methods to give scientific data to support one or the other, in many instances. Both aspects of

⁸ Snedden, David. "An Unconsidered Source of Criteria of Educational Objectives." *Teachers College Record*. XXVII: 587-599. Mar. '26.

relative value offer a fruitful field for educational research and philosophy. This criterion is also concerned with the limitation of effort, recognizing the law of diminishing returns.

4. Is the objective based on reliable evidence? In many ways, research forms the basis of the larger objectives of education. One may ask whether social trends lie in the direction assumed by the objective, or whether or not it is possible for the learner to achieve a certain aim. Both problems are subject to objective analysis to a large extent. One has but to recall the recapitulation theory, the training of the faculties, and transfer of training, to see the necessity for exact and reliable bases for the foundations of educational theory and practice.

An extensive literature is being developed, offering scientific evidence of one type or another, much of it having a definite bearing on the basic assumptions of objectives. As examples of this in the field of Industrial Arts, one might select the *Minnesota Mechanical Ability Tests*,⁹ the Gunther dissertation,¹⁰ or Hankammer's analysis of content of drawing,¹¹ as typical of this research.

Immediate aims, yielding more readily to objective treatment, may be measured for their current validity. Examples of such studies are Newkirk's analysis of home mechanics activities,¹² and Bowman's study of blueprint reading.¹³

A further effect of validating objectives is seen in this connection in testing the effect of change on these studies. The evidence secured by Fuller on home mechanics jobs,¹⁴ or of the writer in the field of adolescent avocational activities,¹⁵ may be more or less seriously affected by recent technological changes, and the radical shift in the general scale of living. The certainty of change in the conditions affecting objectives necessitates a continuous validating process to insure reliable data. Caulwell¹⁶ confirms this in saying.

⁹ Patterson, Elliott, Anderson, Toops and Heidbreder, *Minnesota Mechanical-Ability Tests*. Minneapolis: University of Minnesota Press, 1930. xxii, 586 p.

¹⁰ Gunther, Theresa C. *Manipulative Participation in the Study of Elementary Industrial Arts*. New York: Teachers College, Columbia University, 1931. vi, 58 p.

¹¹ Hankammer, Otto. *Content of High-School Drawing*. Unpublished. Master's Thesis. The Ohio State University, 1929.

¹² Newkirk, Louis V. *Validating and Testing Home Mechanics Content*. Iowa City: University of Iowa, 1929.

¹³ Bowman, Ernest L. *Content and Method in the Teaching of Blueprint Reading for Five Selected Building Trades*. Unpublished assertion. Ohio State University Library, 1932. 283 p.

¹⁴ Fuller, L. D. "Manual Arts Based on Home Repair." *Journal of Educational Research*, March, 1921.

¹⁵ Osburn, Burn N. *Constructive Avocational Interests of Secondary School Boys*. Unpublished Master's Thesis. The Ohio State University, 1931.

¹⁶ Caulwell, Otis W. "Scientific Study of the Curriculum." *School and Society*. XXV: 117-124. Ja. 29, '27.

Truth is progressive. Scientific studies utilize long series of preceding studies and frankly accept and cite unknown and variable elements which, when determined, will probably change the thought and conclusions as they now appear.

CRITERIA OF THE RESEARCH. Research, as applied to objectives, is designed to employ measuring techniques by means of which scientific data may be found which indicate the possible value of any objective. McCall¹⁷ believes that, "To the extent that any goal of education is intangible it is worthless."

An examination of the technical aspects of research methods is not within the scope of this paper. There are, however, certain general criteria relating to the validation of objectives, which may be suggested.

1. Does the study employ critical standards of research? This simply refers to the questions of accuracy, control of variables, etc., which enter into any scientific endeavor. The necessity for careful review of these points is obvious.

2. Has the study been made under conditions which will approximate those in which the objective functions? For purposes of practical school use, the research must be possible of being paralleled by school work.

3. Does the study test outcomes which the school should seek to develop? In the development of immediate objectives, the analysis of human activities may impartially list those things which seem socially worth while, and others which, according to our best thought, are otherwise. A complete list of all of the possible objectives of education would not indicate those which the school could best assume. Since it is only one of many educational institutions, some criterion of selection is necessary in order to enable it to carry on its work most economically and effectively.

4. Can the objective be reached by the individuals who will be directed toward it? This is, in a sense, a negative criterion, which limits, or arranges the selection of objectives. It implies, too, the scientific study of learning difficulties, and of the abilities of the learner. Much of the work of educational testing has been on this point.

CRITERIA OF THE DEFINITION. The statement of the objective is not the least of the factors needing critical examination. A few of the criteria which may be applied to it follow:

1. Does the definition employ terms accurate in meaning? A definition may be stated in terms which are inadequate to the expression of the concepts contained in the definition. Again, it may employ terms

¹⁷ McCall, William A. *How to Measure in Education*. New York: The Macmillan Company, 1923. xii, 416 p.

whose meanings lack the authority of usage, etymology, or authoritative definition.¹⁸

2. Does the definition limit the objective? The statement should include exactly the elements or ideas desired, and exclude those which are not clearly a part of the concept.

3. Does it answer the question, "Exactly what am I going to do?" The definition should state the meaning of the objective in such a way as to make its meaning clear in terms of the goals to be achieved. If possible, the statement should suggest a single interpretation. Here, two extremes are encountered: those objectives which attempt to state the general aims of education, as exemplified by the *Seven Cardinal Principles*, or Bode's *Democratic Ideal*; and specific, immediate goals of detailed learning. Perhaps no words are entirely adequate to the requirements of expressing the remote or broader aims of education. To be useful, these more general statements must be broken down to define the concepts included. Their very vagueness usually indicates the uncertainties in the minds of educators and others as to fundamentals.

RESEARCHES IN SCHOOL SHOP PLANNING

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Some years ago, a city in the middle west constructed an extensive, and (to all appearances at that time) a modern high school building. The citizens rejoiced that the school board and the school superintendent had planned and constructed a building of which they all could be proud. A week prior to the installation of the equipment, the faculty was called in to select the rooms which would best serve particular departmental needs. The building, which to the layman looked a model of perfection, was nothing more than a structure with rooms of varying sizes.

The purpose of this paper is to set forth certain principles and methods of procedure which should be followed in planning, constructing and equipping that portion of modern school buildings devoted to Industrial Arts. Some three or four years ago a small group of men interested in the field of Industrial Arts, met under the leadership of Dr. Warner, and set about the task of producing a handbook on School Shop Planning. The problem has grown until already three graduate theses have been written as parts of this study, and it is expected that more will follow.

A definite method of procedure should be formulated in planning that will definitely locate responsibility for each part of the plan.

¹⁸ Warner, William E. et al. *The Terminological Investigation*. A Research for the WESTERN ARTS ASSOCIATION, 1933.

Heads of departments and teachers should have a responsibility in regard to their particular departmental needs. No architect should draw up a set of plans until after preliminary plans have been made by departments. These preliminary plans should follow principles first agreed upon by those whose task it is to formulate them. After this, it becomes the problem of the architect to assemble the requirements of the several departments into one workable plan, not forgetting that the final decisions as to the various details rest with the departments. Also, holding in mind that the ultimate control should be professional. The school building is planned primarily to provide facilities for an educational program.

In setting up standards or principles, four fundamental bases may be considered. First: *What are the facts?* While a community may desire a very pretentious school building; yet the ability to pay for, natural handicaps, class sizes, teaching loads, integration, teaching personnel limitations, and many other facts, will influence the building program. Second: *Professional criteria.* The criteria set up for the purpose of establishing a level of perfection should be professionally determined. Questions as to size, design, cost, finish, and other elements of the building details and equipment should be settled on the basis of whether they can be justified upon professional needs and possible outcomes. Third: *Local, state and national building codes.* Building details should conform to existing building codes. Fourth: *Opinions of specialists.* Trends, in an area of school endeavor, are determined by those who are specialists in that particular area. Those planning for school buildings and departments, should consider the opinions of specialists to whom they should go for advice.

Five fundamental steps seem necessary in school shop planning. First: *The school and community survey.* Forecasting the number of pupils by grades, judging the social-economic character of the school population, learning the general attitude of the community toward education, and many other facts will influence school planning. These facts may be had only by a school and community service. Second: *Establishing advisory relationships.* No program can be successfully carried out without proper working relationships. The job calls for the united effort on the part of the school board, school superintendent, school principal, heads of departments, departmental teachers, architect, and other interested individuals. Third: *Preparing and presenting the Industrial Arts program.* This means setting up Industrial Arts objectives. The first great principle of school shop planning may be formulated; that every detail be so worked out that each will add to the attainment of professional objectives. This program will describe the work which is designed to meet these objectives. A tentative shop or laboratory layout, showing equipment provisions, service provisions, supply management, staff requirements, and other details is necessary.

Fourth: *Appointment of a professional advisor.* It is good economy, where there is to be an extensive layout, to employ a specialist as professional advisor. State departments, sometimes, may render this service. Fifth: *Draw to scale the proposed development.* This will call for space allocation, and a list of units or areas to be included. To do this may necessitate making cut-out floor plans to scale of every machine and other pieces of equipment as a means for determining power outlets as well as working space. After this tentative plan has been completed, it should be presented to all concerned for criticism. After those changes are made which seem to be necessary, final plans should be prepared for the architect who incorporates them into the final building plans. A check list of the various items to be included is made out to aid in the final checking of the plans.

Principles of Equipment Selection. One cannot proceed very far in planning a laboratory without considering the equipment to be included; therefore, in setting up principles of planning one should also consider principles of equipment selection along with those which refer more directly to the arrangement plan. When considering the problem of equipment, five criteria may be followed; namely, *cost, quality, adaptability, reliability of the manufacturer, and urgency of need.*

The very first control of equipment selection to be considered is the budget. After a budget has been made up for equipment, the problem for the teacher and supervisor, who have the job of selecting the equipment, is to purchase the best and greatest variety, consistent with local educational needs. Where it is apparent that the ability of the community to pay for extensive equipment is limited, smaller, less expensive pieces should be selected. Equipment should be so selected that the total layout will be well balanced. That is, the major part of a budget should not be spent on one or two large expensive pieces, leaving the rest of the equipment of meager and inferior quality.

The first cost is not the only expense to consider. Machines should be selected with a view of economy of operation. As an educational device, a machine with a one-half horse power motor is as effective as one with a five horse power motor if it is of the same type. Machines should also be selected which will not demand excessive installation costs. Large machines not only demand expensive starting controls but require costly wiring. Machines which operate on regular light current are not only cheaper to operate, but also are cheaper to install. Large motors require different voltage, which means extensive electrical installation beyond that of light requirements. The unbiased judgment of an experienced teacher or tradesman should be obtained before final selection is made. Many dollars of school money have been wasted by the inability of teachers and superintendents, who take it upon them-

selves to select and purchase Industrial Arts equipment. The age of the pupils, who will use a machine, should determine its size. Certainly, junior high school pupils do not need machines equal in size and capacity of out-put to those demanded by industry. Machines should be selected appropriate to the needs of the pupils who will use them. Junior high school pupils can operate small machines with less danger of injury than would be the case with larger machines.

The question of danger to the operator should be one of prime importance while selecting machinery for the school laboratory. Only those types and makes should be selected which offer a maximum amount of protection and a minimum amount of danger to the operator. Only machines which are adequately guarded should be considered. Those types which in themselves are extremely dangerous to the operator should not be included in the equipment list for schools except in rare cases.

The expenditure of a sum of money for equipment for which the school has limited use, is a poor investment. Machines should be selected with the view of the greatest possible use by the greatest number of pupils. Personal desire of the instructor for a highly specialized machine, which he alone may use, is not a good criterion for choice and should be avoided. Instructional equipment should be purchased with the idea that it is needed and will be used by pupils.

Principles of Room Planning. It is apparent that one of the first principles to be considered in planning a general Industrial Arts laboratory, is that of the relation of the units of work. The units of work should be grouped according to their similarity of raw material used, their similarity of trade classification, and common use of general purpose equipment. In as far as possible, the shop should present a pleasing appearance. The general appearance should be considered to the extent that the general utility is not lessened. The instructor, as well as the pupils, will usually put forth more effort to keep a shop orderly if, in the first place, the general arrangement is such that they feel they have a responsibility for its appearance.

The room should be so planned that the health of the teachers and pupils will not be impaired in any way. Work which demands fine measurements should be so placed as to make most effective use of natural and artificial light. Adequate ventilation should be provided. Equipment which throws off gas, smoke, or fumes of any kind should be provided with effective ventilation facilities.

Passage ways should be provided in such a way that there will be as little confusion as possible when the class is coming in and individuals are going about the room. These passage ways should not interfere with natural work space. They should, if possible, be so arranged that the class when moving as a whole in or out of the room, will move in the same general direction. These should lead, in general, toward

the general purpose equipment as well as toward the exits. Work space should be provided in which a pupil can work without interference by others who are moving about the room. A pupil should feel secure within his own work space, and that a careful piece of work will not be disturbed intentionally or otherwise. Problems of discipline will naturally be lessened if the pupil is given a specific space of his own, regardless of the unit in which he may be working.

Power machines present an element of danger, and should be so placed that the operation of one will not be made more dangerous by the operation of another in close proximity to it. The pupil is more or less confused when operating a machine for the first time. Especially is this true if the machine is moving at a high rate of speed. The element of safety should be most prominent in the mind of the individual having to do with the location of machinery. Possibility of accidents is greater where there is congestion.

Specifications for Industrial Arts Laboratories. One of the problems to be met in planning a building in which a unit will be devoted to Industrial Arts, is that of location. This will involve the place, floor level, orientation as well as interdepartmental relationships and other details. The Industrial Arts unit may well be placed in any part of the building, if the location is in harmony with adjacent units or departments. Certainly an entirely separate building, under most conditions, would be less desirable, because of the danger of lack of integration with the general school program. So many undesirable factors accompany a basement location that it is unwise to consider such a room for any educational purpose. Certain units of work demand accessibility with outside driveways, therefore, the plan should make this possible. When a development includes more than one room, these should be centrally located. The work in the various units of Industrial Arts should be very closely integrated. This is made possible to a greater degree if the various rooms are in close proximity to one another.

The size of a room for Industrial Arts will, of course, depend upon the probable class size. While it is possible to conduct work with a minimum space per pupil of forty square feet, it is desirable to have fifty square feet as a minimum. Rooms with a ratio of width to length between one to one and one to two present the best possibilities. Certainly, hall-like rooms as well as those of irregular shape should be avoided. The ceilings should be of ample height to allow for the required number of cubic feet of air per pupil and to make proper diffusion of natural light possible. In case the width of the shop exceeds that of other rooms in the building, proper ceiling height may sometimes be obtained by dropping the floor level below that of the rest of the building.

In addition to provisions for principal rooms such as automotives,

ceramics, drawing and design, electricity, finishing, foundry, forging, machine shop, printing, woodworking, and others; certain auxiliary facilities or rooms should be provided. Modern trends in educational procedures make it almost mandatory that the shop instructor be provided with an office or study. This should be located in close proximity to, or (better still) adjacent to the shop. It should be made accessible to both the shop and the hallway. It becomes the instructor's study, and should be equipped as such. Other auxiliary rooms and facilities, such as supply rooms, storage space, tool rooms, locker rooms, wash and toilet rooms, and others should be provided and planned to serve in the best way possible. There has been a tendency in the past to over-equip in some conveniences and meagerly equip in others. Studies have been made which show definitely the required number of toilets, wash basins, and other facilities necessary for a given number of persons. Every Industrial Arts laboratory should be provided with a permanent display space. The school should take advantage of the guidance values in a changing, yet perpetual exhibit. Attention also may be directed toward the departmental library which ought to be in the planning area. Everything possible ought to be done to encourage pupils as well as teachers to use available reference material.

Building Details. One of the most important building details is that of the floor. Too often the floor is not suited to the type of work that is done in the room. The indiscriminate use of concrete floors should be condemned. The floor in every school room should meet at least five requisites, if it is to approach the ideal type. These may be listed as *comfort, durability, suitability, economy of first cost, and simple and inexpensive maintenance*. These requisites are so evident that the extent of this discussion will hardly permit more than their mention. A great deal of variety of materials as well as finish have been used on shop walls and ceilings, many of which are not suited to the purpose for which the room is used.

In the construction of a large room, it sometimes becomes necessary to include pillars within the room. In most cases these have been considered as a handicap in planning the arrangement of the equipment. If the problem is adequately gone over, it will be found that these pillars can be used for the location of permanent built-in equipment in such a way that they will add to the efficiency of the plan rather than present a handicap.

A great deal is being done to improve the type of windows being used in school buildings. Primarily the function of the window is two-fold; to admit light, and furnish a means of direct ventilation. To do these things, a window should be easy to operate and easy to keep clean. It is now believed that the use of clear glass is to be preferred. The problem of the control of natural light is one that ought to receive

the most careful consideration. It resolves itself into a proper diffusion of excess light rather than the elimination or shutting off of the light.

It is assumed that the laboratory will be equipped with blackboards and bulletin boards. If a special demonstration area is provided, the blackboard should be a part of that area. A bulletin board probably should be located near the exit or some place where all students may naturally gather.

Service Features. The planning of an Industrial Arts Laboratory should include a consideration of service features. A trip through the average shop or laboratory will disclose many additions in service features which were not considered when the room was first planned. This procedure naturally is more expensive. Economy in installation as well as maintenance can be obtained only by careful study and planning.

Probably the most important service feature is that of artificial lighting. The question of light and its control has resolved itself into the "Science of light." Many books and magazine articles have appeared in recent years, which help to solve this phase of laboratory planning. No one needs to guess on the amount of light needed for various types of work as this has been scientifically determined.

Window frames, sash mullions and muntins are reduced to the minimum to allow for the maximum admittance of light in homes, as well as in school and industrial buildings. While great progress is noted in the use of natural light, still greater progress has been made in artificial lighting. Natural light may at times vary in intensity as much as four hundred per cent within a very short time. It is possible to so control artificial light that no perceptible change is noticed during hours of service.

Bollinger points out five steps in the light planning process. First: determine the foot candles required. This has been worked out by illuminating engineers, through study, observation, and experiment. Their conclusions form a reliable basis for all present lighting comparisons and recommendations. Second: determine "condition factors" for interior, whether favorable, average, or unfavorable. Third: select group of equipment. Fourth: decide mounting height, considering twelve feet desirable for mounting height. Fifth: locate, by the factors governing the problem and obtain proper recommendation. Sturrock writes,

In planning a new school building, the initial wiring system should be designed, not only to properly distribute the immediate load of electrical energy throughout the interior, but also to possess sufficient capacity to meet, to a reasonable degree, the probable increasing needs for a few years to come. From this point of view, lighting maintenance problems may be fairly simple or extremely difficult and uneconomical depending upon the care taken in selecting the proper size of wire, conduit, panel boards, and switches, as well as proper location of outlets and lighting units for the initial installation.

The prevention and control of noise is a problem worthy of most careful study. Comparatively little has been done on this subject. Only through scientific research will the problem be solved. The problem of noise reduction and control seems to present three major steps. First, is that of source. Second, is through absorption, particularly at the boundaries of the room. Third, is the reduction of the transmission of noise. Two factors may be considered here, that of surface treatment of floors, walls and ceilings, and air-borne noise.

This discussion naturally points the way to a number of studies closely related to that of planning, such as supply management, supervision, and a study of costs of Industrial Arts, compared with intrinsic values. These and many more will help to shed light on the big problem of school shop or laboratory planning.

HISTORICAL RESEARCH IN MANUAL AND INDUSTRIAL ARTS

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The invitation to present this paper was accepted upon conditions which ought to be revealed at the outset. Our president did not ask me to define historical research, to formulate general principles of procedure, or to clear up any of the obscurities of the subject. On the contrary, he invited me to relate personal experiences, and in that field I was not limited except in the amount of time to occupy. With this explanation I hope you will accept my apology for the personal character of the paper. Such a style seemed to be the most effective in presenting my message.

When I first began to study the history of what has been called "the manual element in education," I had no thought of writing a book on the subject; neither had I any idea that I was beginning a study which would ever be designated as research. My purpose was very simple, very elementary, even childlike. Just as the little girl who wanted to know who made God, so I wanted to know the origin of the manual-training idea in education. Before long, however, there was an added incentive in the fact that I was giving instruction to young men who were to become teachers of manual training and I thought I ought to be able to tell them more than I know about the history of the subject they were to teach. I was not working for a master's degree and therefore did not have the incentive of a thesis to write. Primarily, then, I was trying to satisfy my own curiosity—hunting facts for the pleasure of hunting and the satisfaction of knowing.

At that time there were no such books as *The Technique of Research in Education* by Crawford, or Good's *How to Do Research*

in *Education*, and I had not seen a book comparable in any way to Fling's *The Writing of History*, or to Hackett's *Introduction to Research in American History*. Without guidance I began and continued. Gradually I learned by my mistakes. Sometimes I worked to great disadvantage. At first I did not know how to make records of my findings so that they would be complete enough for later use. Practically all of my early work had to be done twice. Gradually I developed a technique. I came to discriminate among different sources of information, but not until I had come across some very contradictory, puzzling, and inadequate statements. By actual experience I learned to go back as far as possible toward original sources for information. Then, when I came to write, I found my purpose and viewpoint kept growing and I rewrote parts of my manuscript many times.

Discriminating Among Sources of Information. What I now look upon as one of the most valuable of my early experiences was my effort to find out just what Comenius contributed to manual training. At that time almost my only sources of information on the history of manual training were a chapter in each of three books: *The Theory of Educational Sloyd*, by Salomon, *The Sloyd System of Wood Working*, by Hoffman, and *Hand and Eye Training*, by Goetze. Each of these was essentially a translation from a foreign language, so far as the chapter on the history of manual training was concerned. It was in the study of these three books that I came to realize something of the necessity for knowing the viewpoint and skill of a translator in evaluating his work, and especially whether he was a propagandist.

In Hoffman I read that Comenius was a "savant and teacher" and that in his several works he had "shown the true significance of manual training as a means of education." In Goetze I read that Comenius emphatically maintained the idea that "manual training is a means in education" but that "in the Francke Institute the first step was taken toward establishing Comenius' theory and applying it to practice." In Salomon I found a quotation from a translation of a book by Comenius which read thus: "They should have a general training in the chief forms of hand work if, indeed, only to the end that thereby they should not be kept in gross ignorance as to what belongs to human life. But, besides this, it will make it much easier to discover later in what direction the natural inclination of each tends."

When I read these three statements, my curiosity was tremendously stimulated: If Comenius was a teacher, why didn't he put his ideas into practice instead of allowing Francke to have that honor. Did he really leave it to Francke? When Comenius said "hand work" did he mean manual training? Just what did he mean? Were the translators to blame for this obscurity of meaning? Were two of the translators trying to prove something and using a modern term, "manual training," that meant or at least connected something different from

what Comenius intended? And just what was done at the Francke Institute?

Misuse of Term "Manual Training" by Writers. In my slow way of working and with my difficulties in procuring books, it was several years before I could answer satisfactorily these and other questions pertaining to the contribution of Comenius to manual training. I consulted Quick's *Educational Reformers*, and my curiosity was still more aroused. Other books on the history of education were less helpful. Then I sought the best translations of several works of Comenius: *Orbis Pictus*, *The School of Infancy*, *The Great Didactic*. Finally, in three and one-half pages I wrote what I believed to be the important facts about the contribution of Comenius to manual training without using the term "manual training" at all. In my estimation that term should not be used in describing the manual element in education that existed before the concepts that gave that term birth had been brought together.

Another typical experience with a misleading translation emphasizes this last statement. In Goetze I read that in a few years after 1773 there were in Bohemia, under the supervision of Kindermann, over two hundred schools "in which manual training was carried on." In Hoffman the expression "some two hundred manual training departments" was used. In Salomon it was stated that "manual work was taught in about two hundred schools." What appeared to be the real facts came to light when it was discovered that the appendix to one of the volumes of a *Cyclopaedia of Catholic Education* in the German language contained a comprehensive account of the remunerative industrial work done in connection with public schools of Bohemia but outside of school hours, the motive of which was fundamentally economic rather than pedagogic.

Dozens of similar experiences might be mentioned. Sometimes a thousand pages may be looked over before one finds the material for a single paragraph. But that is what gives zest to the work of research.

Importance of Card Catalog. If discrimination between sources of information was the first and most important lesson I learned, and if a reasonably restricted use of the term "manual training" was the second, the third had to do with taking notes and keeping records. After waiting hours, even days, of time in amplifying records I had made at an earlier period, I reached that very simple and reasonable conclusion which is supported by Professor Fling in *The Writing of History*, namely, that one needs both a card catalog and notes if he is to do extensive work in historical research. On the desk in my study I now have card catalogs totalling about thirty inches in length. These are on four- by six-inch cards and are organized first by countries, second by major subjects, and then by minor subjects or by dates. I rearrange the cards as often as I choose. These cards are large enough to contain

some notes, yet they are essentially to refer to the place where data can be found.

In addition to the card catalog, one should develop some system of note-keeping. I have used a variety of forms. If I were to begin note-keeping again, I would use standard letter sheets, some with and some without holes punched for notebook, and I would have at hand a punch for making the holes. As fast as notes were made, I would file them in indexed folders and the folders in a vertical letter file or in envelopes.

Adequate Notes Essential. But, far more important than the filing system is the completeness and character of the records. Experience has demonstrated over and over again that there are two essentials in note-taking for historical writing: the first is that complete data should be given concerning the source. If taken from a book, the author, title, edition, publisher, place of publication and date of publication should be given in full. No abbreviations or short cuts should be tolerated here. The second is that exact quotations are usually worth far more than any summaries that can be made at the time of taking the notes, for one cannot be sure just how he will wish to use them. Further study may change his thought concerning their use. Their value may depend upon knowing the exact wording. In such a case summaries made in a distant library become useless, whereas the exact wording may be of great value.

From what has been said so far in this paper, one might conclude that research in the history of Manual and Industrial Education is a very exacting, prosaic, and wearisome occupation. It is exacting; at times it is prosaic; and it may become wearisome; but so is almost any occupation a part of the time. On the other hand, if one has the right background and motive for such study, it may become not a task but a pleasure excursion into the unknown or a hunting expedition where there is plenty of game. If your legs do not give out and you keep your ammunition dry and use it skilfully, you are sure to bring down the birds. Personally, I have found it the most permanently inspiring avocation of my life. One reason why it is easy to keep up one's enthusiasm year after year is that he gets his pay in satisfactions as he goes along. A few examples from experience may make this clearer:

As already stated, one of the early books I consulted was Quick's *Educational Reformers*. Certain passages in that book I read over and over again, and every time I did so my thirst for more information was increased. One such passage concerned Sir William Petty. I learned that he wrote an epistle to his friend, Master Samuel Hartlib, in which he said, "All children, though of the highest rank, are to be taught some gentle manufacture in their minority." In this letter, also, he recommended that "literary workhouses" be provided in connection

with schools, where children might be allowed to experiment and work with tools. When I read this, I wished I could see a copy of that epistle.

Several years later I called on Professor Hanus, then head of the Department of Education at Harvard University. His office and department library were then in the Lawrence Scientific School building. He gave me permission to go about as I pleased in the library. While examining the contents of a pamphlet box marked "Technical Education," I came across a small pamphlet entitled "The Advice of W. P. to Mr. Samuel Hartlib for the Advancement of Some Particular Parts of Learning." A line at the bottom of the cover page indicated that it was printed in London in 1647. Someone had written Sir William Petty below the W. P., and when I saw that I was thrilled with the sensation of a man who has discovered a continent. Neither Professor Hanus nor the librarian knew that this historic pamphlet was in their library. As its discoverer, therefore, I was allowed to take it home with me, photograph it, and copy parts of it.

Several similar experiences in looking over about a thousand unclassified pamphlets in the library of the Bureau of Education enabled me to have the use of original source material that I had never expected to find. The sensations of pleasure experienced during the several days I spent in that library in the cramped quarters of the old Doric Interior Department Building in Washington are even now a source of inspiration.

From year to year, as opportunity offered, just as valuable source material, though not so dramatically revealed, was found in the Peoria Public Library, the Newberry and Crerar libraries in Chicago, those at the University of Chicago and the University of Wisconsin, the Library of Congress in Washington, and the Boston Public Library.

But not all the rewards came from efforts in libraries. In my experience the second most important satisfaction came from purchases in old-book stores. For many years I made it a matter of program to visit the old-book stores in cities where I went to attend conventions. Many times I have purchased what I had never been able to find in libraries. I recall one particular instance: In reading about the beginnings of the Mechanics Institute Movement in England, I had found references to an important discourse on "The Education of the People" by Lord Brougham in 1825. I had hunted for it in libraries without success; I had sent to Goodspeed in Boston and purchased *The Life and Times of Lord Brougham* in two volumes, thinking that they might contain the desired discourse, but they did not.

When attending a convention in Rochester, New York, I dropped into an old-book store near the Mechanics Institute which was kept by a genial gentleman of scholarly bearing. As usual, I was given permission to browse among the books. Through experience one acquires a kind of extra sense that enables him to recognize a book of a certain

period. As I was looking along the shelves I saw between larger volumes the back of a thin, faded red book, on the backbone of which was pasted a printed label. A closer look revealed that it was Volume II of *Sketches of Public Characters*, by Lord Brougham. In it was the very discourse I had long been looking for. I took it to the proprietor and said, "How much for this?" He looked at it and replied, "That isn't worth anything to me. There is only one volume. I can't sell it. Take it along with you. You may have it." I was so surprised that I said nothing for an instant; it was such an unique experience. When I recovered my speech, I thanked him. Then I went outside, exposed a kodak film on the front of his store, and now I have a picture of that book store pasted in the book in grateful remembrance of that gentleman's gift.

Quite different was my experience in one of the Cornhill book shops in Boston. It was in one of those old-time, unorganized shops, no longer to be found, where you can hunt and hunt until you are weary and be tempted to buy books you never can use, where there is only one-way traffic between shelves and a basement where that traffic is still further thwarted by books and parts of books on the floor, sometimes two or three deep. In such a place I found a badly worn copy of Elizabeth Palmer Peabody's account of Bronson Alcott's School of Spiritual Culture, published in 1836. It looked like twenty-five cents to me, but when I took it to the shopkeeper, he said one dollar and a quarter. When I expressed surprise, he assured me that that book was in demand and hard to find. I agreed that it was hard to find it in his shop, and gladly paid the price. Evidently he knew his books, even if they were not organized.

Once in Chicago, perhaps twenty-five years ago, I went into Powner's famous old-book shop for the first time. I asked the clerk who met me, "Do you have any old books on education?" "No," he replied. As he said this, I caught sight of some ancient-looking volumes on the top shelf. "What are those books up there?" I said. He didn't know but allowed me to climb the ladder. Up there against the ceiling I found two volumes of *Annals of Education*, one of them containing Woodbury's "*Sketches of Hofwyl*," a copy of the *American Quarterly Register*, and several volumes by Henry Barnard. I left the store with a bundle of books and only money enough to get back to Peoria. At another time—in this same store, I think it was—I purchased nine volumes of the Report of the Centennial Exposition of 1876 in Philadelphia in order to get fifty pages in one of them. Probably I have had fifty such experiences extending over thirty-five years.

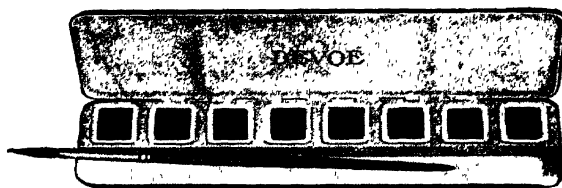
The Viewpoint of the Author. To these few statements on discrimination among sources of information, great care in the interpretation of words, the importance of a system of records, and the personal rewards of research, I now wish to add a thought concerning the

author's viewpoint in writing on the history of Manual and Industrial Arts Education. To me it is perfectly clear that prejudice, propagandism, and tradition, as well as ignorance, have been among the hindrances that have prevented a just and reasonable interpretation of certain events and ideas brought forward in the history of our phase of education. I place the blame upon the viewpoint and the research methods of writers on the history of education. Now that we are doing research work ourselves, future generations certainly ought to have a truer conception of the evolution of this department of school work than we have had in the past.

An example of one of these hindrances may be observed in the translation of Rousseau's *Emile* most commonly found in American libraries. When one compares this with the earliest and complete English translation of 1763, one discovers that, from the standpoint of our specialty, the choicest parts of Rousseau's classic are omitted. For one reason or another the translator or the editor was not interested in that particularly vital part of Rousseau's idea of reform in education. This strikingly obvious example is typical of others.

Another hindrance has been the selection of historic material to emphasize certain movements in education, as the humanistic, the realistic, the naturalistic, the psychological, the social, etc. Authors working on such a plan very naturally have selected material that

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emphasized the importance of the particular movements chosen for presentation and have had only very incidental interest in historic material outside their selected field. In other words, their scheme did not involve the use of very much material on the manual, the trade, the vocational, or the industrial side of education. Moreover, their selection was intended to give an over view or external view, whereas what is needed in our subject is an internal view—a true picture of the evolution of thinking, of experiments, of courses, of methods tried, of aims, and of conclusions. There is, of course, value in the external view but at the present the great need is for the internal view. This means that the research worker in this new field must be able to see his subject in its practical workings as well as its superficial appearance in order to make the best selection of material and present it in useful form.

Only a sentence or two more in conclusion. Historical research in the field of Manual and Industrial Arts Education offers many opportunities—not to every graduate student, but to those who enjoy working under the kind of limitations I have tried to set forth. While the field is not large, it is undeveloped, and the motive for effort is sufficient. If the next generation is not going to keep on foolishly repeating the failures of past generations in our field, such research is needed. And, if our department of education is to take its rightful place in the education family, it must use every scholarly means of proving its right to such a place. One of these means I believe to be historical research.

ADMINISTRATIVE PROBLEMS

ELIZABETH DYER

*Director, School of Household Administration,
University of Cincinnati*

Much attention has been given in the past few years to the organization of courses in art appreciation. The purposes of these courses is quite different from that of courses in technique or in statistical data about artists and schools. Art appreciation courses today no longer aim (as one student described it) to teach who painted what and where it hangs, but rather to give students an insight into the problems that confront an artist and the criteria by which they may better judge the relative merits of art objects. Life for every student is enriched by the ability to recognize how the principles of color, line and form are applied or can be applied to countless objects with which one is associated every day. Since appreciation courses in art have proved so valuable educationally, is it unreasonable to suggest that appreciation of administrative problems may add considerable enlightenment to the causes of our irritations and annoyances? It may even add in

large measure to one's peace of mind and sense of security. All of us here today are affected by administrative policies and mechanisms, and hence it is not inappropriate at this meeting of Home Economists of the Western Arts Association to ask the artist and the teacher to consider some of the problems of administration from the point of view of an administrator.

In schools of business administration we find that one of the first questions propounded is whether administration is a science or an art.

There has not been much evidence that administrators are interested in making management a science, nor has there been enough scientific investigation to ascertain truths that may be compiled into a body of classified and correlated facts that would make administration a science. Perhaps in the not-too-distant future such information may be available.

On the other hand, if an artist studied the problems of administration he would be likely to see many places where the principles of art could be effectively applied to management: in the determining of a conscious purpose, and in working out a plan for achieving it; in the selection of tools and materials best fitted to carry out his purpose; in the utilization of some of the principles of art, such as balance, proportion, subordination and variety, in order to produce a harmonious whole.

Like the artist the administrator must first define his purpose, and plan ways and means of achieving that purpose. What a host of difficulties the administrator of a department of Home Economics meets in defining purposes and objectives. There are several reasons for this. In the first place, the administrators, i. e., board of directors, or superintendent of schools, or college president, may have a very indefinite idea about the best objectives for a department of Home Economics. In fact they may be entirely ignorant of the subject, or completely biased by their own home situation, or lack of vision and appreciation of the part the family plays in the development of the individual.

Then, too, the changes in our economic and social life have made it necessary to formulate new objectives in training for better home living. Revision of the curriculum tends to lag behind economic and social changes. It seems to be a characteristic of human nature to resist situations that cause a modification of habits, and hence it is sometimes difficult to convince teachers of the need for setting up new objectives and developing new subject matter. Moreover, it is not an easy matter to obtain unanimity among teachers concerning the specific objectives of training for family life. This is partly due to the fact that Home Economics is a subject that touches all of the vital aspects of life and it is especially difficult to fix the same clear cut lines of demarcation in subject matter that is found in many other fields of knowledge.

These are some of the problems the administrator meets in determining purposes and in planning how they can be realized.

The achieving of purposes is considerably complicated by the type of tools and materials the administrator must employ. Personnel and financial resources are the two instruments upon which every administrator must depend for the realization of his plans. The administrator must learn to work with complex personalities, bundles of conditioned reflexes, behavior patterns, emotional drives, and unknown capacities, which must be motivated to work for specific objectives. Unlike the artist or the scientist who is trained in the use of the medium through which he attempts his creative endeavors, the majority of administrators enter upon their duties completely ignorant of and unskilled in the handling of people, and often completely unaware of their deficiencies in this respect.

An administrator may see Home Economics as a vital subject molding the attitudes of the child, or creating appreciations that will make the individual a more intelligent consumer, or a worthier home member, or a more socially minded citizen, or a better adjusted personality. A teacher of Home Economics may think only in terms of the number of garments to be made, or the number of dishes to be prepared and cooked. The administrator may have no idea how to go about stimulating the teachers to make his vision a concrete reality.

Still other obstacles lurk in the path of the administrator. Jealousy is usually somewhere in the ranks, blocking not only the plans of the administrator but dwarfing the afflicted individual. Unfortunately it may attack the administrator himself, and in this case block the capable teacher who may have more vision, better ideas and more ability than the administrator. Inferiority complexes that masquerade as self-importance, and self-satisfaction may completely confound both teachers and administrators. Special abilities and the creative spirit may unwittingly be mistaken for insubordination or plain contrariness.

If administrators and teachers are to work together to achieve objectives that will bring success to their work all must have a better appreciation of why people act as they do. If the principle of balance and proportion is to be employed so as to make a harmonious whole it will require a sympathetic understanding not only of the obligations and responsibilities of the administration but also of the interests and ambitions and urges of the teaching force. The teacher is always impressed by the importance of the subject she teaches and it is often difficult for her to acknowledge that other subjects should have precedence over hers. Yet the administrator has to keep in mind a sense of proportion.

A harmonious whole usually is attained by the wise subordination of some details and the accenting of others. This is as true in the organization of a stable, progressive department of Home Economics

as in the creating of a work of art. Misunderstanding on the part of the person whose work is curtailed is inevitable unless the teacher is as interested in the department as a whole as she is in her particular subject.

The other medium through which the administrator must work is usually conspicuous by its absence—financial resources. The limitation of resources is so much a part of the experience of us all that it can be passed by without comment except to say that a lack of finances is perhaps an asset when it develops resourcefulness on the part of the administrator and the teachers.

The administration of Home Economics has been somewhat complicated by the requirements of the subject, such as double laboratory periods, limitation of the number of students for laboratory work, and in some cities cost of supplies and equipment. The combination of these requirements has made some administrators look upon Home Economics as an expensive department, and one difficult to schedule on the school program. It is gratifying that experiments are being conducted to eliminate these objections to Home Economics. In one state at least it has been proved to the satisfaction of the Home Economics supervisors that work done in Home Economics in the regular school period, can be just as effective as in the former laboratory periods. This is one phase of the subject that needs further research.

Perhaps the administrator's greatest financial problem, after sufficient money has been appropriated, is the division of resources. Differences in salaries, money spent on equipment, illustrative materials and reference books, all have a way of becoming entangled in human emotions, desires and ambitions, which complicate the administrator's task and disturb the peace of mind of all concerned.

Accounting experts have been actively engaged in educating administrators to the new ideas of financial management and bookkeeping. It remains for those particularly interested in education to see the importance of a critical examination of the motivations of human beings; of cause and effect of human relationships.

Until both administrators and teachers have a better understanding of why people act as they do, the most serious problems of administration will remain unsolved. It is recommended that Home Economists be acquainted with Tead's *Human Nature and Management*; Schell, *Technique of Executive Leadership*; Hersey, *Workers' Emotions in Shop and Home*; and Burnham, *The Normal Mind*. It would also be very profitable for administrators and teachers to glance, at least once a year, through such books as *The Teacher and Secondary School Administration*, by Carpenter and Rufi. This is one of the few books on administration written from the point of view of the teacher.

It must be emphasized that this very hurried glance at some of the problems of administration has touched but one phase of admin-

istration and that phase very lightly. The decision to consider here the importance of human relations in administration may be justified by reminding you of the old Chinese classic, *The Great Learning*, which says:

The Ancients who wished to illustrate illustrious virtue throughout the Empire, first ordered well their own States. Wishing to order well their own States they first regulated their families. Wishing to regulate their families, they first cultivated their persons. Wishing to cultivate their persons, they first rectified their hearts. Wishing to rectify their hearts, they first sought to be sincere in their thoughts. Wishing to be sincere in their thoughts, they first extended to the utmost their knowledge. Such extension of knowledge lay in the investigation of things.

Things being investigated, knowledge became complete. Their knowledge being complete their thoughts were sincere. Their thoughts being sincere, their hearts were then rectified. Their hearts being rectified, their persons were cultivated. Their persons being cultivated, their families were regulated. Their families being regulated, their States were rightly governed. Their States being rightly governed, the whole Empire was made tranquil and happy.

It cannot be, when the root is neglected, that what should spring from it will be well ordered.

VI. AN ATTEMPT AT APPRAISAL

SUGGESTIONS TO THE ASSOCIATION FROM THE SECTIONS

Presentations by section chairmen and others to the Association's officers and Council members in the nature of a panel program.

DR. THOMAS E. FRENCH, *Ohio State University*. This being the first occurrence of a research section program, I think it is perhaps just finding itself. I certainly hope that the paper of Dr. Munro, "Researches Needed in Art Education: With Special Reference to Tests for Artistic and Aesthetic Ability," will be printed in full for the benefit of all the members and that it will be made available for distribution as a reprint. It was certainly one of the high spots of the program for me.

MR. CHARLES A. BENNETT, *The Manual Arts Press*. I think Professor Hankammer's paper, "The Derivation of Drawing Content," is worthy of special mention. We should have a bigger vision of drawing, and if this is so, we certainly ought to read that paper. Then the paper that followed was an outstanding contribution on "Public-School Applications," by E. A. Hauenstein.

PROFESSOR FRED C. WHITCOMB, *Miami University*. I feel that this meeting of the Association surely has brought together in a closer union various interests in the field of general education. It seems to me that we want to have our work brought to the attention of all professional people as the fundamental thing in education. As I heard one director of a training school say, the various Practical Arts subjects are the very backbone of the public-school curriculum.

Another highlight has been brought out by Dr. French in the

research phase of this meeting. There is considerable opportunity for research, and we must establish our objectives more clearly and in a fundamental way. We must be able to go before boards of education or taxpayers and present our case clearly. If we cannot, it is possible that in a short while we shall have nothing for which to fight.

MR. FRANK C. MOORE, *Cleveland Board of Education*. The Fraternity Banquet was certainly an interesting experiment to me. I am not sure just how well it was received. Both Mr. Fletcher and I had several requests after the meeting for its continuance. As I am to have something to do with the program next year, I would like to present some things for your consideration.

I would like to see someone talk to each group who did not represent our point of view or agree with what we are doing. I feel that we go to conventions just like people who go to prayer meetings—to hear from all the people who are already saved. Each one seems to go just to get an opportunity to talk about how wonderful it was. I would like to see industry give us their views on the place of Art, etc., at the Detroit meeting.

I would like to see programs for the Art, Industrial Arts, and Home Economics teachers alone; not supervisors or administrators. These should be held in the afternoon at 3:30 or later, so the Detroit teachers can attend.

PROFESSOR R. S. HILPERT, *University of Minnesota*. I came here especially for the research meeting, and I, for one, would like to see that we have a similar meeting in the future. The program this year stimulated us more than most programs we have seen before.

With that I want to offer the suggestion that we consider the panel idea. The speakers with such a plan consist of six, eight, or ten people having different views on a topic. There is no prepared discussion. They usually sit around a table, someone starts the ball rolling, and it is kept going. The Superintendence meeting used that method at the N. E. A. and I hope it will be considered here for next year.

I have felt for some time that the WESTERN ARTS ASSOCIATION was offering too little in advance of the past and that it was not giving sufficient recognition to, nor cooperating with, contemporary movements in professional and scientific education. I have been greatly impressed, however, during the past year by the organization and development of a convention which was thoroughly planned and integrated into a unified whole. The early publications of the *Bulletin* which announced the Fortieth Anniversary Convention—the completed program accurately diagrammed and issued so conveniently early in the year, spoke of the unusual and excellent thought involved in the preparation of this convention.

There is great need for tolerance and understanding as well as cooperation in the research movement in education. No real progress in.

nor recognition of, the Arts in the public schools can be gained permanently until educators as a whole are convinced that we teachers are wholeheartedly educators first, and secondly artists or craftsmen.

With the continuance of a research program, as well as an appraisal section, the WESTERN ARTS ASSOCIATION could very well act as a clearing house for the reporting of all researches carried on in Art Education and the like. This would help avoid duplication of some work or aid in extending previous work. It would strengthen those now engaged in this valuable but as yet unappreciated phase of our professional development and would give the individual student or research worker an opportunity to have his efforts evaluated. It is essential too that the WESTERN ARTS ASSOCIATION work in close cooperation with the NATIONAL EDUCATION ASSOCIATION as well as with other Arts associations. If we fail at this type of cooperation, then the various arts will continue to be withdrawn from the schools.

Regarding sending resolutions to the Office in Washington, I agree that Industrial Arts and Home Economics should have been in the survey program. We regretted that it was not included. There was a statement made that the Art section was given only twenty-three pages. You may be interested to know there was only \$200 available for the National Survey of Art Education. The work was started in March and occupied practically all of my time until after September. Of the huge amount of material we presented, only twenty-three pages were finally printed.

PRESIDENT WARNER. Professor Hilpert is the author of the all-too-brief report on Art that appeared in the government's Survey on Secondary Education.

Now, before calling upon the President of the Council, perhaps we ought to comment briefly about its work. The nature and work of the Council has been one of my most interesting studies this year. What are the functions of a Council? The members were early asked, "Shall the Council have legislative, administrative, or advisory functions?" There was no agreement on that point. The constitution implies but two functions of the Council: legislative and advisory. If the Council were to assume administrative functions there would, of course, be no place for a President or Secretary.

Other points of Association policy raised with the Council included questions concerning: the constitution, program of publications, budget, promotion, membership, editorial policy, auditing and bonding, affiliations, representation on the Council, the program, forms and form letters, awards, topically constructed programs opening with orientation speakers, SHIP relationships, the fiscal year, etc.

I also have been asking myself for months, "What are the big things the Council can accomplish when it convenes in Columbus?" In presenting Professor Dutch, I want to give him my conclusion:

that the Council could accomplish at least three significant things in Columbus; two of these have now been set under way.

The first was to determine upon policies of Administrative Operation, organization, and possible reorganization for next year. This was handled by a motion for studying and proposing a revision of the Constitution. The second major job concerns our professional Program for next year and succeeding years. The third problem is the ever important one of the Budget. Now, all the facts upon which to base a budget for next year are not known, and presumably the budget cannot be decided upon until these facts are assembled. It would be folly for us to think that we can determine a financial program until we have had ample opportunity to gauge the returns of this year's investment in a functional perspective of several years' operation. In the light of suggestions by Mr. Bennett, Dr. French, Professor Hilpert, and others, ought there not be certain expenditures placed back of certain suggestions for promotion? The general tenor of the Council is a sincere wish to accomplish something of most worth to our membership and the professions represented by it.

Professor Dutch, won't you now give us your thoughts on the work and future of the Association?

PROFESSOR GEORGE S. DUTCH, *Peabody College for Teachers*. I think we always come to an association meeting as individuals. We come together and pick out the things that have individual references to our desires and perhaps such emphasis has been placed upon the one thing that I want to say. This program has been fine, but I could dispense with the entire program and have had just Dr. Munro up here to point out forty years of work ahead of us. I like his challenge. I think we are off for another forty years; forty years of progress, which would leave us only twenty years short of "A Century of Progress." Our progress has been gradual. I have seen things that show an upward climb. Let's not now go into a decline after forty.

DEAN ALBERT E. SIEPERT, *Bradley Polytechnic Institute*. I wanted to offer a suggestion on the Alumni Luncheon. There should be an opportunity for school registrations so all institutions represented may know who is here, and have a time when various alumni can get together. I think it is fine to have a gathering of this sort, and I approve of the idea of having a luncheon for the whole group first.

MISS EMELINE S. WHITCOMB, *Formerly Senior Specialist in Home-making Education, U. S. Office of Education*. It has been a great pleasure for me to attend this meeting. The programs have been most stimulating. We are not technicians; we have graduated from that, and it is so wonderful to articulate with the other members of the Arts group. It is wonderful to be here with the Art and the Industrial Arts people, and all those who have been responsible here. I am delighted to have had this opportunity.

SECRETARY WOOD. The job of the Secretary is to see that the mechanics of the thing go along—to see that the established routine is maintained.

I think my reaction to the program is that it has been one of the strongest programs we have ever had, even though it has been a little overcrowded.

As to Dean Siepert's suggestion for the Alumni Luncheon, we shall be happy to comply another time. The suggestion has come from one of the alumni organization maintaining a scholarship that the meeting of the WESTERN ARTS ASSOCIATION is when they collect money to subsidize poor but worthy Art students. There should be time for individual alumni meetings to take care of the business of these organizations.

I serve as Secretary of the Association, taking care of the registrations and keeping the purse-string tight, and also as Secretary of the Council. There has been a discussion of the duties of the Council: what the Council's obligations are or what they should be. We switched over from a committee type of organization in 1912 to a council plan, under which we are now operating. Membership on the Council is for five years. This enables its members to have a full picture of the operation of the Association. It often happens that we have strong officers with ideas of their own. They are looking ahead. There are also times when we have officers who haven't had contacts with our organization and haven't so much to contribute. The Council was set up as a guide or balance wheel to keep us on an even keel. Very few people look at the constitution. No constitution can hope to cover everything. Therefore, it is the duty of the Council to assume this other responsibility. We are to have a revision of the constitution. If it is to include the details which are now covered by Council decisions, well and good. The way to solve that problem is to put it into the hands of a committee for serious study and report to the governing body for action. I am sure this will get us somewhere. This special committee is to make its report in December. That will give the Council time to examine and correspond about the report and print its recommendations in the *Bulletin* two months in advance of the annual meeting, where it can be approved or not.

The Council will not do anything it is not supposed to do according to our old constitution, and once a new constitution is adopted, I know that we will all be happy to operate within it too.

MR. CHARLES A. BENNETT. I wanted to say a word of encouragement to these people who are talking about forty years ago. I believe I am one who can look back forty years. I wasn't in attendance at the first meeting; I was in New York City and read with tremendous interest the report that was made of this Association. I have the record now. The report of that first meeting was looked upon by the people

who read it as one of the most progressive things that ever happened in Art Education in this country. When this Association was started in the West, we who were in the East said, "They have gotten ahead of us; they have done the most progressive thing that could be done." What was it at that time? It was a little group of people so interested in the subject of Art Education that they had to get together and talk it over to see what was to be done next. If you compare the report of those people, who were progressive people, with the subjects they were discussing, their problems, it was an inspiration indeed. If we have vision, we will grow, just as the people who started forty years ago.

SECRETARY WOOD. We have the original minutes. There were eighty-four members the first year and one hundred twenty-four the second.

MR. RALPH L. NEWING, *Commodore of the SHIP*. On behalf of the SHIP organization, I think that most of the people present know how well the exhibitors have been pleased this year. We can't expect as much in a year like this as in normal times. We are quite familiar with your situation. We get into many schools over the country, and we know you can't buy of our wares so generously now as in years when you have more money. The thing I wanted to mention particularly is this: I have heard the program discussed. It was undoubtedly a tremendous program, something which can be pointed to in the future.

I want to mention a point from the point of view of publicity. I think most of the educational associations make the mistake of not getting their programs out well enough in advance of their conventions. The WESTERN ARTS ASSOCIATION did have its program finished and on display as early as last December at the Kansas City A. V. A. convention. The people who travel great distances to come to these conventions don't make up their minds, oftentimes, until the last minute. It is the best medium of advertising to have people thinking in terms of attending the convention; and, of course, the better your program is, the better talking point you will have.



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AN APPRAISAL OF THE SUGGESTIONS

RALPH W. TYLER

Bureau of Educational Research, Ohio State University

My understanding of the job which I venture to undertake this morning was that of making some suggestions, as an outsider, on the proposals which might be brought in, especially with reference to research in the various Arts fields.

One of the things which impresses me at once with reference to the program here is the opportunity that you have provided for this Appraisal section. Most of the difficulty of administering any such elaborate thing as an extended program is that of getting constructive criticism.

I should like to bring in some comments with reference to research in education, which may provide suggestions in connection with your programs of research. One of the first things in laying out such a program is to get a blueprint of the problems which need investigation, or for which research is stimulated. By that I mean problems in the field of teaching, problems of the objectives which are to be reached, problems in materials and other devices by which these objectives may be reached more effectively; problems in teaching procedure and methods, and problems in the evaluation of results. I also include problems in the organization of the work and in the techniques of administration—all of which concern persons who are engaged in your work just as much as those who are engaged in other fields of work. This laying out of problems for research is not a one-man task; it is not a one-institution task. The large number of problems which need investigation require cooperative effort.

One of the most promising things in recent years has been the acceptance of service investigations of the research type carried on by people who are primarily interested in education. They are not themselves directly spending their time in research work, yet are finding out a great many things. The essence of the spirit of that work is the realization that if you are doing something, the study of how you are doing it, the attempt to collect data about it, and the evidence of what succeeds and what does not succeed, carried on year after year, will be more valuable to you than any amount of research work conducted by someone else, and which is not applied specifically to your own problems.

It is important that adequate evaluation be made in the Arts fields. If I may speak in connection with fields about which I know more, I may bring in illustrations that I believe will be appropriate. Educational problems have been studied in many fields of subject-matter, using the results of examinations as evidence of what is happening to students, but using examinations in most cases which determine the

amount of information which students could recall from the various courses they were taking. As an illustration of that, the question was investigated as to whether the *laboratory method* of teaching chemistry, or the *demonstration method*, or just the *reading of textbooks*, was most effective. In a very large number of institutions the evidence gained and used in coming to a decision was how much chemistry students could remember after having been exposed to one or more of these types of procedure. The chemistry teachers, when asked what they really try to do, will tell you their objectives go considerably beyond teaching students to memorize facts of chemistry alone. They are interested in teaching students to apply the principles, in interpreting the data from experiments that are new to them, and in drawing conclusions that are justified. They are concerned in some cases with teaching some laboratory skills. They are concerned in others with teaching students to make effective reports.

I use this as an illustration of the fact that there are many objectives in almost every subject. We can't have a proper evaluation of the methods of teaching unless we are able to get evidence about *each of those objectives*. We found, for instance, that in chemistry there was no guarantee that the student was attaining these other objectives. We found, out of a group of students all of whom had memorized the important facts in the given chemistry course, half of them could not employ the important principles in new situations. Yet all the evidence that had been collected previously was evidence of how many facts the students remembered. About a third of the group which had memorized the important facts were not able to interpret experiments. They had to be told what the experiments meant. Nearly two-thirds of the group were unable to plan experiments themselves.

If these other objectives are important for chemistry teachers to reach, we don't have adequate evidence of how effective the method of teaching is unless we have evidence of what that method does in assisting students to attain all of the objectives which are important for that work. I suspect you will have the same problem in Art Education.

It is easy to discover how much information students remember about Art, but undoubtedly that is not the most important objective you are teaching. As soon as you have formulated objectives that are worth teaching, any attempt to conduct research which tries to find out ways of teaching those objectives more effectively must utilize some means of judging the results of this procedure in terms of these different objectives.

Take, for instance, the study of the effects of class size as an illustration. We have studied this using experimental classes at Ohio State University. When students are judged by their ability to recall information from the class, we find it apparently does not matter how

large the class may be. We had some groups that did not go to class at all, and some that read the material during the class periods. The latter did as well as those who were in the classes all the time. On the other hand, when we tested the students on applying principles, we found in every case that those students in the small classes did superior work. We found the same sort of thing in their ability to interpret experimental data. If these are valid objectives in science teaching, then we must conclude that we are losing these objectives by having large classes. Some institutions have been satisfied to measure a student's attainment with reference to one, two, or three of the objectives and not make any sort of appraisal of how well he is attaining the other objectives. On that basis they have drawn conclusions regarding effective procedure in teaching.

The suggestion has been made that the administrators of schools often fail to appreciate what Art Education may mean to the students of Art. I think that is not only true of the administrators of schools; it is also true of parents and other persons who ought to be tremendously interested in this field. One of the responsibilities that ought to fall upon educational research, and ordinarily has not been assumed, is that of translating the information received in research investigations into terms of social values that people really recognize and want to have.

One experiment on which we have been working at the Ohio State University in some of the science classes has been to discover the effectiveness of different types of individual projects for the brighter students to carry on, in the science courses. We have expressed the results of those projects in terms of time saved. We have found that brighter students who have been given a chance to work on special projects will go as far with the objectives of the course in nine weeks as the bright students not given that chance will go in twelve weeks. That form of statement gives more meaning to the results to people who are not technical research workers.

To me, then, there are four points that are especially important: (1) Outlining a general plan of the problems which need investigation so that persons will not go off on a tangent because of something that appeals to them at the moment. (2) When these outlines are laid out, to stimulate a cooperative type of research in which every person who is at all interested in studying his own processes will engage. (3) Investigations that are made should be evaluated adequately. You will not be satisfied with measures that are easy to make but really don't get at the heart of Art teaching. If we have objectives that are difficult to measure, we can't leave them out because they are difficult to measure. We must get some appraisal of them, even though it is just a consensus of judgment. (4) Finally, if research results are really to influence people—teachers, administrators, patrons, or the public gen-

erally—the responsibility falls upon you, just as it falls upon everyone else who is engaging in that research, to try to make the results understandable in terms of things which people recognize have value. That is what I mean by translating the results in terms of social values which people understand and want: such things as the time element, the type of person that can be developed, and the beauty that can be contributed to life. Those are values, when properly expressed, which people want.

The necessity, I think, falls upon the research worker to translate his work in those terms instead of in abstract numerical values, which, unsupported, have no meaning to a person not trained in research work. If those things can be done, I think they will help to make the field of research in Art Education—that field which is concerned with trying to get evidence of how effectively we are doing our work and how we can do it better—a most promising one, which should be a very flourishing one in the forty years to which you are looking forward.

PRESIDENT WARNER. Despite Dr. Tyler's mild manner, what he has said was filled with many excellent suggestions for our Association.

I am going to close with this thought: We have been characterized professionally as a generation behind some of these other better-developed professions like the sciences which Dr. Tyler has mentioned. I feel like saying, Let's go home *not* feeling satisfied with ourselves in maintaining the *status quo*, but resolving to make a new, better, and greater *status quo* for the next forty years.

SECTIONAL MEETINGS

VII. MUSEUMS

EDUCATION THROUGH THE MUSEUMS

ANN V. HORTON

*Museum Instructor for Cleveland Public Schools
Cleveland Museum of Art*

The movement for educational work in museums is still young and growing but I think we may say it has passed its period of probation and is now an accepted factor in the educational programs of all cities where museums exist. Even at this time, when our educational systems have been wracked and shaken by economic disasters, and when every school activity must prove its right to a place in the curriculum, there is reason to believe that museums will contribute more, rather than less, to the education of the community.

Every museum whether established for history, art, or natural history, is a little world in itself and as such its policies for serving its

public will be shaped by such factors as the ideas of its trustees, its location in the city and its type of exhibits. Most art museums, however, hold certain common objectives which are fundamental in making up their educational programs:

1. Museum programs are adapted to emphasize appreciation rather than to emphasize technical study.
2. Museums must aim to provide a diversified program which will offer experiences in appreciation at every age level.
3. A close integration with other educational institutions of the community.

Let us briefly consider each of these objectives; first, a museum's program of appreciation. The idea that enjoyment is assured and spontaneous by merely bringing people and beautiful objects together is hardly acceptable. Only a small per cent of a city's population are equipped by nature or training to enjoy fully the galleries of a museum. But there are many people who are interested in art and who wish to develop an appreciation of fine things. A museum's educational program should meet the needs of these people.

It is very natural that the first look at an object is merely one of identification. What is it? What does it tell or mean? For what use is it? But appreciation must be much more than classifying, and a museum's educational program must be concerned with helping visitors on from their first, casual vision which merely recognizes, to the vision which delights in qualities of line, form, and color arrangement. Many people are susceptible to a suggested line of study and turn to lectures and conducted gallery visits as real training in appreciation.

The average museum visitor must be helped over another limitation, a belief that only familiar subjects treated with exacting realism are works of art. So again the educational program should by lessons with children and lectures with adults provide repeated experiences with art qualities until old and young are made aware of the beauty of design and form, until they see that realism should no more dominate the visual arts than it should dominate literature.

In thus emphasizing appreciation as a museum objective I assume that we are agreed that it is an active experience and not a passive one and efforts to make such a program vital must be stimulating and diversified.

The second objective in a museum's program is to provide training in appreciation for all ages. A few decades ago all activity in a museum centered in the interests of adults, and these interests were thought to be adequately met by a very academic type of docent service. Then came the idea of children's rights in a museum and children's rooms were organized with exhibits particularly suited to their interest. Quite naturally, from this recognition of children came the development of children's programs and art classes in a museum.

Work with schools and colleges reaches age levels from the pre-primary child to the graduate school student. Club interests are never neglected and lecture programs with diversified subjects are planned for adults.

A third objective in museum education is to keep it closely related to the activities of other educational organizations. The more closely museum activities can be integrated with the programs of schools, clubs, libraries, and colleges, the richer will be the museum's offering. Since schools, public and private, present the largest numbers interested in visual education their needs have been studied and museum programs have been shaped to meet them. Every museum carries out its school program in its own way. Some gather large groups for auditorium programs which are to be followed by gallery study. Other institutions prefer to work with small intimate groups in directed but informal gallery study.

The Cleveland Museum of Art began its school program almost as soon as the Museum was opened. At first each district supervisor of art planned visits for the teachers of her district. This proved unsatisfactory because no one of the supervisors of the four sections of the city was able to spend enough time at the Museum to familiarize herself with the collections, nor could anyone have time to work out a program which offered continuity. This led to the appointment of an assistant supervisor of art whose office was in the classroom at The Cleveland Museum of Art and whose duties it was to plan a school-museum program. Teachers accepted invitations for field trips so eagerly that two assistants were subsequently appointed to aid the museum program. In the meantime suburban schools made similar provision for their classes. The Educational staff of the Museum now numbers fourteen, inclusive of members paid by boards of education to carry on the museum program during the school days. There are thirty-three persons who help to carry on the existing program of Saturday teaching and Sunday lectures and story hours.

While the Museum stresses work done in its galleries as first importance, it also recognizes the need of sending material and teaching service to distant schools. One teacher is entirely occupied with lectures in junior and senior high schools. This teacher meets with faculty groups and discusses ways in which Museum material may enrich classroom activities. She also arranges the illustrative material and presents it to classes until teachers have become sufficiently familiar with it to make subsequent use of it without the help of Museum teachers.

Close cooperation with these secondary schools is helped by meetings with the editors of school papers. This insures notices of interesting Museum events being in school papers. School bulletin boards also carry posters and notices which help to establish Museum contacts with the junior-senior schools.

The Museum provides further help to schools by lending certain types of material to them. The services of the lending collection can hardly be overestimated. A member of the educational staff with an assistant is fully occupied in placing these exhibits and making the frequent changes of them. The type of material thus available must be placed in locked cases and is limited to schools who provide this case. Among the materials lent are textiles and embroideries, tops, pottery and ceramic animals, and exhibits which show processes of glazing, making enamel, wood block printing and wood carving. In addition to this material there are thousands of lantern slides available, also portfolios of material which may be helpful for teachers' problems in design.

Although the earlier interest of the Museum instructors was that of selling the Museum to the schools, teachers' energies were largely devoted to conducting classes studying in the Museum. Careful evaluation of tangible results of Museum teaching have led to a change of emphasis. It now seems advisable to stress work with teachers, showing them how to make use of the Museum materials for the enrichment of their classes rather than expending all the teachers' activities upon conducting classes in the Museum. The time of one of the three Museum teachers is now needed in follow up work for visiting classes, in introducing any new material to the field and in conferences which help teachers to know their Museum. I think we will agree that appreciation is active and that a museum's first obligation to its community is to provide experiences of appreciation and enjoyment.

VIII. DESIGN AND COLOR

PAINTING WITH LIGHT

WALTER E. REISER

Designer, Von Gerichten Art Glass Studios, Columbus

Light in operation is the agent, force, or action in nature by which objects are rendered visible or appear luminous. Blindness is unimaginable. We close our eyes and yet we cannot blot out the vision of people and things. Our memory holds them. We can call up different scenes or bring back the faces of loved ones or friends at will. If you had never seen a flower, could you construct a rose from its fragrance? If you had never seen color in light, you would have no conception of the power of colored light,—its ability to attract or subdue. Our world is inconceivable to the congenitally blind. Light of course makes the difference. Without light there would be no color, and visual form would have no meaning. Light, color, and form are fascinating, and glass is one medium in which light is glorified. All the colors are made transcendently beautiful. Cathedral windows, with their gorgeous combinations of colors, are miracles of vision.

Stained glass is good only in proportion to its suitability as a vehicle for color, as can be shown both theoretically and practically. It should never be forgotten that in a window design drawing must always be secondary to color. It is well known that an indifferent design, or even a bad one, if well colored, may prove a success, whereas no amount of good drawing will save unsatisfactory coloring.

Medieval windows are noted for their rich color and clarity of design, fundamental requirements of a good window. All colorists know that to give a color its full value it must be presented to the eye in small pieces. The light that passes through stained-glass windows partakes of their colors, and has such brilliancy that at a distance the smallest piece assumes great importance.

Radiations of transparent color have very different values. For instance, consider the fundamental or primary colors, blue, red, and yellow. Each color, when transparent, radiates to a very different degree: blue most powerfully, red very badly, yellow not at all or with a tendency to borrow from the red and turn orange. The glass artist must learn from observation and practice that radiation of certain transparent colors is such that it alters or modifies the quality of these colors themselves. Painting when applied to glass should, even in its most heavily shaded parts, allow the natural tone or color to be seen, not as through a film, but in bits of pure color. A shadow which completely covers a colored glass at a distance becomes opaque. This opaque portion takes on part of the surrounding color. Even in the darkest shadow, bits of pure color must show through. A design painted on a limpid blue, at a distance, disappears entirely. The farther off one goes, the more indistinct the design becomes, through irradiation. With red this same design encroaches upon the red so that at a distance the red can be distinguished only by sharp touches. These touches gain in intensity what they lose in extent. According to this principle every transparent color must be screened in accordance with its radiating properties. The glass painters of the twelfth century knew this law of radiation, as is shown by the works they left us.

This glass is blown in cylinders called muff glass, which are flattened out and from which we get our sheets of antique glass. Another type is the Norman bottle glass. These bottles are produced now in this country. Each of the sides, when cut, produces a glass of varying thickness. The most beautiful glass in the Middle Ages is glass made by these crude methods. It is that variation in thickness of glass that causes the color to blend so that tertiary colors show at a distance. This means that the stained-glass artist must confine most of his color to the primaries, such as blues, reds and yellows, with very little real yellow, which must be a straw color.

This does not mean that we must depend upon European craftsmen for their glass to secure beauty and color. Fine colors are made

now in this country. For instance, cobalt will make a beautiful blue. Certain rubies are a combination of silver and gold, mixed with the sand as it is melted at a temperature of from 2000 to 2500 degrees Fahrenheit. The temperature has to be maintained for twenty-five hours or longer, and the glass is gathered on the end of a punt and blown into different shapes.

Formerly the manufacture of stained glass was considered a lost art. It was not lost. The laws of stained glass, the laws of color, the laws of optics as applied to stained glass, were ignored. During the period from the fifteenth to the eighteenth or nineteenth century they were trying to make *pictures* in glass, which was absolutely wrong.

As the chemical operations of the medieval glass artist were crude, the list of unexpected colors and varieties was large, and no doubt the artist took advantage of this in breaking up his fields of pure color by a great variety of tones. The modern craftsman must achieve this control by a wise choice of glass and a true understanding of the principles of irradiation. By the use of matt oxides fired into the glass he can reduce the intense brilliancy of the tones, which would otherwise disturb the color balance, but he must still adhere to straightforward simplicity of design and color. As color irradiation creates its own (primary) combinations at a distance, so the most successful windows are those that use the primary colors with some binary or secondary colors.

By the dexterous juxtaposition of small bits of red and blue glasses one can secure, through the intermingling of the rays, a purple window, producing, so to speak, an "ocular cocktail" which "tastes" purple. I believe the twelfth-century artist knew what he was doing and deliberately did it for a specific purpose. All craftsmen employed during this medieval period seem to have known that they had a mission in common: that the stained window was just one of the ordered parts of a great scheme comprising the whole building and everything belonging to it. Since its architecture, its wall paintings, its colored and gilded pillars and arches, woodwork and ceilings were all so richly colored, why should the windows have been excepted?

We are working with material that is very hard. Windows are made up of small bits of colored glass, held together with H-shaped leads. These leads are wrapped around each piece of glass. The black of the leads makes the colors appear brilliant, so the stained-glass artist must use this as his medium of expression.

I believe you would be interested in knowing a little of the mechanics of making a stained window. First, a small sketch is made in color. There is no other medium that can express color as can stained glass, and these sketches merely give a general idea of the final result. After the idea has been criticized, the sketch is enlarged

to full size. By that I mean that when a window is commissioned, we have to take an actual pattern of every piece in the window.

Colored glass absorbs certain rays of the spectrum, transmitting those that we see. In other words, with a red glass the only rays of light that come through are yellow and red; the blue and green rays are absorbed by the glass. Therefore it becomes very hot, so that a window which is made up of mosaics of small pieces of glass with bits of H-shaped lead will expand. Lead is in a constant state of expansion and never contracts to its original dimensions. Therefore we divide these windows into individual sections which are self-supporting. That is one reason why large church windows, windows in public buildings, or even in homes, have armatures to support the individual sections. These are saddle bars, spaced ten to nineteen inches apart, depending upon the width of the window. They assist in keeping those sections straight and help pull them back to the perpendicular form in which they were originally placed. That is a limitation of stained glass of which the craftsman must take account. He is working with colored light, and in order to convey the story for which the window is produced he uses an oxide of iron, mixed with vinegar, wine, or beer, and makes the accessory drawing lines and details. The heavy lines on the cartoons are the leads. We use heavy lead just as the artist uses heavy lines.

That is as far as we dare go in using or overcoming some of the limitations, so that the design is a pattern of one color against another. That is what makes it interesting. That is one reason why we must keep our designs simple, and why we draw our figures with the knowledge that they must overcome perspective. We know that they will be seen at a distance, and the simpler we keep them, the better the windows look. That is one reason why the windows of the Middle Ages, the eleventh, twelfth, and early part of the thirteenth century, are so beautiful; they are so simple. The stained-glass designer and craftsman cannot depend upon facial expressions to get an idea across, so he exaggerates the posture. Our figures are eight heads or more high, because perspective will reduce the size of the figure.

Primarily the idea underlying all this unified beauty in old churches and other buildings was usefulness: it was a means to an end. Craftsmen of the Middle Ages did not go in for Art for Art's sake. Their object was to produce something useful. If their work was beautiful, it was so because it answered that end, and according to the degree in which it answered its purpose. All work required for the church was instructive, to drive home the message. Paintings on the wall, mosaics and other arts, were to show to the learned and unlearned alike the story of the Church's life, the teachings of Jesus and the saints. The windows were used in the same way. In its heyday stained glass was used for the same purpose in other buildings besides

cathedrals. Parish and collegiate chapels, monastic houses, colleges, castles, palaces, moot halls, and manor houses, in all of these stained glass was used to minister, in conjunction with other crafts and arts, to the ends for which such buildings were erected.

The education of the masses was entirely in the hands of the clergy. Once the principle of pictorial representation was established, they used windows as an additional means of propagating the faith in the days when books were still rare and very costly. Colored windows were a wonderful means to "make the house where God may dwell beautiful, entire, and clean, else our lives are incomplete."

It has been said that a window makes its appeal by arousing in the mind certain trains of thought or meditations. In other words, the delight one takes in stained glass is due not only to its color but also to the message it brings to us. It is indeed the most reflective of the arts. A window is like a book which may be the work of a single author or a symposium to which several have contributed.

Windows, too, like books, unfold a story of human endeavor and of human achievement. In turn they instill in the reader morals, ideals, inspirational messages thus creating and holding intense interest until one has reached a climax. It was through the stained windows, through the poetry of symbolism, that the craftsmen impressed their teachings, using the doctrines of iconology, the art of personifying the virtues, the vices, the passions, and all the stations of life. Just imagine the unlearned walking around the church studying the stories which have been told him of the life of his favorite saint. To the medieval mind these word pictures explained the doctrines of the Church. Take, for instance, the story of the good Samaritan. It was much more than a study of neighborliness. To them the man who went down from Jerusalem, the city of God, to Jericho, was "Adam leaving Paradise." The thieves were the seven deadly sins, the priest and Levite were the law of Moses, and the good Samaritan was Christ himself, who healed the man's wounds and provided him with spiritual help. And so all of the parables are word pictures, used so effectively by Jesus in his ministry, illustrated in the poetic language of the age. Jesus used these word pictures to appeal to the heart-strings of the people of all times. The Old Testament is just full of these word pictures. Read the Twenty-Third Psalm. We all use symbols as the most efficient way of getting ideas across, to make intangibles clear. We have the science of iconology to distinguish the hieroglyphics of emblems, the emblems of attributes, the attributes of symbols.

In many early stained-glass crucifixion scenes the cross is a tender grass green, and often its arms, instead of being straight, are curved upward or droop gracefully like the leaves of a plant. This signifies that the cross is not the grim end of a heart-breaking tragedy, but a

living, growing plant upon which Christ is but the first of many blossoms.

Sometimes to remind us of the continuity of the Christ life story the column against which he is bound for the flagellation is carried across its medallion borders up into the cross scene above, where it forms the upright of the cross. Sometimes this light green upright of the cross runs upward and downward out of the window and across its frame to grow in every direction away from the dreadful Golgotha. Such symbolism makes many windows linger long in one's memory. With the aid of this graphic poetry, art can and does make clear the aspirations of life. Symbolism is expressed in color. Through symbolism we speak with the language of poetry. Blue is the symbol of brotherly love; red of passionate devotion; white of purity and innocence; green of life. So, as you go on, you can see how these early craftsmen used their symbols of color, such symbols as you see in the chalice, the sun and moon standing still at the time of the crucifixion, Christ speaking of the gifts of the spirit as represented by the seven doves, and the hand of the creator, all are part of the window.

In a window that represents the Trinity you can see how the craftsman used his blacks and whites in order to get his spatial composition in color. The border in such a design is red, the background is blue, the leaves are very conventional, a bluish green. You will notice that the most successful windows do not contain the blues that are heavy, that take on warmth, but a cool blue, the limpid blues that border on the greens. So also the reds are not a heavy, beefsteak ruby, but a sort of orange tone. An instance of the shading can be seen in a piece of ruby bottle glass. It is that shading of which the stained-glass artist tries to take advantage. In the making of a window he uses those darks not to create roundness in a figure, but to break up masses of solid color. The innumerable bits of colored glass assist in this.

St. Augustine spoke of sacred pictures as "the books of the people," of which the primary purpose is to teach. One of their main functions was to arouse the imagination. As window compositions are viewed from a distance, naturalism will not provoke much thought and imagination, nor will it tell its story as distinctly as symbolical expression. So all scenes can be conventionalized and easily understood.

During the medieval period heraldry blossomed. The understanding of this art and symbolism gave the artist in glass an opportunity to introduce color into the windows of the homes of that period, through the use of blazonry. The glass itself of that time was very thick, and due to the impurities of their materials, all glass had some tint, which gave a most pleasing light. It was not until after the fourteenth century that glass was made transparent.

Two classes of objects gave the artist an opportunity for expression. Saints are depicted by attributes and symbols, sometimes with

one, sometimes with another, sometimes with both; that is the apostle Paul is, sometimes shown in glass with the sword pointed up and sometimes leaning on the sword. When raised, the sword is the symbol of the militant character of Paul's ministry, while in the latter position it is the attribute of his martyrdom, for he was beheaded with that weapon. The apostles Matthew, Mark, Luke, and John are shown by the symbols of the angel, the lion, the ox, and the eagle, each typifying some particular characteristics of Christ as expounded by the individual evangelist, the angel or human form being Christ's human nature (Matthew). The lion represents the resurrection, in allusion to the medieval belief that the young lion born dead was called to life by its father (Mark). The ox is a symbol of sacrifice, in allusion to the sacrifice and priesthood of Christ as described by St. Luke. St. John, who took the highest flights of all, is represented by the eagle as it soars, the highest of all birds.

It was during this medieval period, from the eleventh to the end of the thirteenth century, that cathedrals vied with each other for the favors of glass craftsmen. Kings conferred privileges upon them. It is even said that a clause in the treaty of peace concluded between Henry II of England and Philip of France at Tours bound Philip to allow one of his best glass craftsmen to come to England.

Finally, what had once been a glorious art, pulsating with fervor, vibrant with emotion, vivid in both color and sentiment, became a business. Choked by greed, its life blood of sincerity thinned down by mass production, this splendid art lay dormant. It was reborn in this country, where students, artists, and architects studied, analyzed the reasons for the beauty of the old windows, and through perseverance and a missionary spirit like that of the medieval craftsmen are creating a new standard for our cathedrals.

Wonderful stories may be told of stained glass and of light as to what it has accomplished and what it will do. Perhaps in your own homes you will see beautiful windows made by American craftsmen, who have regenerated this art and who understand its true application. It is color in light, or design in colored light. Glass is suspended against the light, giving spatial composition in color resulting in solidified jewels of sunlight.

"The voices of true religion and true Art," says Wagner, "unite in revealing the germs of a possible kingdom not of this world. It is the duty of all to strengthen the foundations."

Roger Riardan says, "Art, whose words are things, whose symbols are types, whose grammar is beauty, is the universal language that needs no interpreter."

SOURCES OF DESIGN MATERIALS

FELIX PAYANT

Ohio State University; Editor, "Design" Magazine

This discussion should be prefaced with the statement that I do not have any sensational methods in the use of design materials; I have no one big popular system of attack like the method of using cut papers; nor do I have any startling method of design research. While I believe it is imperative to give the matter of design and design material our best thought, I am afraid of the idea of a Billy Sunday of Art or an Elmer Gantry of Design. What I have to present may seem rather like disillusionment at first, but I would rather have it considered as a re-evaluation of design and its sources.

No one system can entirely suit the needs of the teachers of design whose aim it is to develop the understanding and appreciation of the many, as well as the special abilities of the few who are particularly endowed to take their places in the new social order. I have little sympathy with those who are always on the lookout for "trick" new methods, hoping that they will finally hit upon the one which will work the charm.

I believe in the power of design, and in the remarkable place it has made for itself in recent years. I believe in the imagination innate in the average person, and that experiment will bring it out. I believe in teaching and in the ability of most teachers who do not allow themselves to become crystallized. Teachers must have a philosophy or point of view. Mine is somewhat summed up by what was so ably stated by Richard Bach, who says,

Good design, like anything a man likes to do well, is not a trick of necromancy, but an achievement due to work, and skill, and talent, and study—all combining to make the best possible use of that native intelligence commonly known as "horse sense."

One of the most striking changes in the *New Significance of Design* is the fact that we no longer think of design as being purely a matter of adding ornament—applying decoration to the surface of objects which have already been constructed. We all rather generally recognize today the difference between "designing" and "prettifying," although we all agree that there is still a place for good decoration. There was a time when designers were used in industry only in the function of finishing-touchers; they were expected only to ornament objects already planned by some engineer or other person. But at the present time the word "designer" has a different connotation, and fortunately he has something very definite to say in the construction of the objects produced. The machine is no longer considered a curse but a larger and better tool with which to produce. Properly understood, it offers much material to designers other than to imitate the work of the hand. Mr. Alon Bement of the ART ALLIANCE OF AMERICA, has very clearly

shown what has been done in business in the way of re-designing packages, cartons, and containers at the Louisville meeting of WESTERN ARTS. This is just the beginning of what is being done. One of the best definitions I have ever heard for design, especially as it applies to industry, is "controlled appearance." I like especially the word "Control," for in it there is a wonderful source of design.

Design in the commercial world has far surpassed the mere *art in industry* theme and now means a matter of such subtle relationships as to effect a new appearance. The designer is now a real factor and controlling influence in business, comparable with the inventor, the traveling salesman, and advertising agent of other years. Design is now used to sell food, to rent houses, to sell automobiles, to sell trips to Europe, as well as railroad trips across the continent. See what design did for the Ford automobile; see what it has done for the linoleum business. For years none of us would use linoleum except on the floor of the kitchen or some secluded hallway. Now it is used, due to its improved design, in the best interiors. When I say "design," I include color, because we understand color to be one of the elements of design. Pick up such magazines as *The Nation's Business* and notice how much of them are devoted to the possibilities of good design as a factor in the rehabilitation of business. The makers of almost all new synthetic materials such as beetle-ware, macarta, vitrolite, fabrikoid, and many others, are aware of the fact that the important factor in presenting these to an enlightened public is design and for that purpose the services of the very best designers are engaged.

It is not only in the matter of design in the market-place that we have made readjustment. Design is also used to increase our appetites by the atmosphere created about foods, not only the table and the room but combinations on the plate itself.

CREATIVE ART. That design has new connotation in the field of Fine Arts is very clear by what is going on in the studios of the best artists and art schools everywhere. For a long time we have thought that art was a creative activity intimately associated with the warp and woof of life itself. Since the beginning of the twentieth century we are beginning to see more clearly that art has the dual nature of creation on the one hand and representation on the other. It is by means of design that the artist has always been able to project his idea. It is by means of design that we see today that the artist objectifies himself and what he has to say. It is due to the growing emphasis on design that art means more to society. This suggests to us that the source material of design for the artist must be eminently of a creative rather than of imitative nature, which we have heard stated in many ways and many places.

APPRECIATION. This brings us to the matter of a design sense or an appreciation of design, or perhaps I might call it a feeling for the

decorative. This is in contrast to the idea, perhaps still prevalent in some of us, that a design is some sort of figure or geometric device or cabalistic form which we get from some outside source. Art is essentially creative activity on the part of the artist. Instead of thinking of design as a matter of things to be "lifted," or pirated, or copied, or borrowed, even from such well-reputed sources as the Greek, is it not reasonable to believe that it is a matter of relationships—of integration rather than of merely physical nature? The real designer will find about him in life the same sort of material with which to create his work as the musician and dramatist find for their work. The latter uses for his source material such significant things in life as a *logical development* in the life of persons; of a personality combating irresistible force and limitations; the interesting transitions taking place in one life as it is affected by another, and many other universal patterns of existence conditioned by the basic emotions and interrelationships existing between the lives of different persons and those existing between persons and natural forces. These are also the sources of design material which should be appreciated, and usually are, by the best designers, in contrast to the more or less superficial aspects of things in the world around us.

A new point of view toward design in the schools will lead us to more perfectly evaluate designing materials than ever before. The progressive education group with its able leaders have made us see what an artificial thing has been the work and particularly public school art work, done in the public schoolroom in the past. It is a kind of outline lesson imposed upon the pupil by the teacher, which used to occur and perhaps still does in thousands of schools throughout the country. In the EASTERN ARTS program in 1932 Dr. Herbert Bruner presented the results of his study of 30,000 courses of study on file in the curriculum construction laboratory of Columbia University. He indicated that nothing of significance has been produced in recent years in the field of design with the exception of a few cases. What usually appears in courses of study, he said, is as follows:

October objective, give class instruction on painting a large specimen of a flower, fruit, or tree. Paint on board from nature, showing pupils how to proceed with the work. Aim for good size, placing, and simple expression of growth. Two lessons of each, if necessary, first in black crayon, second in colored crayon, for greater interest.

SOURCES OF DESIGN. The usual sources of design as they have long been taken up by teachers of design in public schools and high schools, have been nature, historic ornament, and imagination. I should like to start by eliminating the second one and in its place mention materials or materials and processes. As I progress, I should like to amplify each one of these and show how each one is not only important but that an interrelationship of the three is necessary to good design. Or, in other words, that it is impossible to derive design material from any

one of these zones of interest in itself without consideration of the other two.

When we study design sources as classified at the beginning—namely, nature, imagination, and materials and processes—we hear of people speaking of basing design on all sorts of nature forms, or we may use the term “environmental material.” One uses flower forms, another uses animal forms, some may be very enthusiastic about snowflakes. Then some other person may have much to say about working entirely from imagination. Those interesting Viennese designers like Professor Joseph Huffman, Vally Wieselthier, and Emmy Zweybruck put great stress on the matter of having young designers work through the medium of material. In other words, materials such as clay, wire, wood, the warp and woof of textiles, themselves have the very rarest things to offer in determining the design motifs. They like to say that the material designs itself through the hands of the designer. If we were to enumerate the great list of forms to be found in our environment, we would find that there were more than could be used in a lifetime. Let us review them:

1. Physical, nature forms or phenomena such as rain, waves, clouds, minerals, crystals, earth formations, solar system.
2. Biological forms, or life forms: plant, animal, and man, or human forms.
3. Manufactured or machine forms.
4. Forms which are combinations of all of these, are seen in Coptic ornaments or the Italian Renaissance.

Any one of these could be elaborated upon indefinitely. If we were to make cross-sections and intersections of these and continue into the mental and spiritual life of human nature with the complicated emotions such as fear, or phobias, this list would go on indefinitely. We could then easily draw the conclusion that the materials of design are life itself, and that, after all, the attempts to catalog, or pigeon-hole the unlimited sources in the panorama of life around us is rather meaningless.

NATURE. All of the material of life around us may be represented by one angle of a triangle, and while it is the one that we have emphasized the most in the past as a source, it is the least important of the three. By an overemphasis of this many designers and teachers have produced work which was pretty bad. We have all seen work of the nineteenth century artists, especially the kind of sculpture one sees in the Luxemburg Galleries in Paris, and we realize that the artists were interested only in producing an absolute imitation or image of the figure, the human figure, before them.

IMAGINATION. As Eric Gill said, “It is more important for the artist to have something in his mind than for the model to have something in his body,” which is another way of saying that we need the

imagination, that what it expresses is of far greater value than fidelity to the externals in nature. As we know, there is no limit to what can be done with imagination, but in most cases I think the kind of work we know as imaginative is affected by phenomena about us so that any expression of the imagination is involved somewhat with life forms and relationships, experience, in the world in which we live. We seem to have stored up, however, innumerable patterns on our subconscious minds, movements, motifs, shapes, and forms, which are more or less understood by others. Sometimes we refer to them as basic or fundamental. Among these may be mentioned basic shapes which we have grown to consider as fine ones, those which engage the interest of intelligent persons, amusing ones, grotesque ones. Then there are forms which are three-dimensional, with similar relationships, which are always a matter of fundamental interest. There are growths upward and outward and downward. Among those qualities which are likely to clog the channels of expression and design might be included such surface qualities as high-lights, snapshot effects, certain kinds of light in shade, meaningless perspective, puzzling and uncertain attitudes of plant forms, or the human figure and animal forms.

MATERIALS. The third angle of this triangular figure is material, or working material—processes. This is an angle with which we are not familiar as a rule, and from which one could find much inspiration. In exhibitions of work of designers there are often examples, and glaring examples, of the artist's not being on proper terms with the medium with which he is working. In the field of ceramics, for instance, it is common to find pieces created with little consideration given the clay. It may be made to look like almost any other material. And every day about us we may see countless examples of iron painted to look like wood, plaster modeled and colored to look like metal, and wood to look like stone, and so on. There seems to be prevalent in the human mind a strange appetite for this sort of thing—a misunderstanding of the fine structural qualities and rhythm in the common materials which we find in nature or which have been composed or created and are accepted for common use, such as paper, etc.

CONCLUSION. To sum up what seems to me the most vital area of design source material, it would seem that it comes somewhere in this triangle and no design can be complete without some kind of inter-relationship between the creative imagination at one angle, the life motifs, and the material and processes, or medium, with which the designer is working. Any one of these alone is misleading, impossible, for it is obvious that an idea existing one hundred per cent within the imagination has not yet been put down or materialized. The moment we express graphically an idea we have in our imagination, it becomes involved with some sort of material—paper and pencil, brush and paints, clay, or some other medium. At the same time, as has been

mentioned before, the idea in some way will be conditioned by something in our environment or experience. It is important to experiment with these and make a beginning first at one angle and then at another of this triangle. If we begin with the angle marked "material" and take as our medium clay, we soon realize that a hundred per cent piece of material is nothing more than a lump of clay as it comes from the earth. The moment it is given shape or refined in any way, it becomes involved with the imagination and again we find that, beginning from this angle, it is impossible to design without considering the imagination and environmental phenomena. Just what the exact relationship of these three factors should be in a good design no one can say, but the real designer will have, through his sensitized understanding and his experience and study, reached the point where he can select or adjust the various relationships between the factors involved.

COLOR—ITS PLACE IN ART, EDUCATION, AND INDUSTRY

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Color, the greatest emotionalizing force, and the alphabet, the greatest intellectualizing medium that man is exposed to, are, as an old maxim states, "ever seen, yet never seen." Few persons ever stop to consider the importance of these two factors in their daily lives. Nearly every thought, action, and emotion is determined by one or the other of these influences. People are startled when they think what life would be without color and what a state of culture would exist without the letters of the alphabet. It should be the serious concern of art teachers to make pupils conscious and appreciative of the finer influences of color.

Progressive education tries to develop the whole child, his body, his mind, and his emotions. It stresses his emotional development in which color study can play an important role.

Color exercises should also be color experiences—exciting, joyous, and developmental. Formal activities dealing with hues, values, and intensities, or fitting various "harmonies" on the same design, are not only valueless but as deadly as the recitation of the alphabet and the multiplication table. Delight in color expression or color appreciation is a matter not of theory, but of personal reaction. And this is determined by racial inheritance, social environment, age, sex, type of personality, mentality and training. A nomadic Gypsy's daring sense of color is in strong contrast to that of an Englishman or a German. What is true of races is true of individuals. Personal preferences should be

allowed full liberty. One cannot expect a subtle scheme from a child any more than one can expect him to prefer a string quartet to a brass band.

Color sense can be developed in every normal child. The program may be divided into four phases:

1. The formation of the habit of consciously looking at, and for, color everywhere, not only in the obvious places as inartistic expression and the more brilliant displays in nature, but also in the more subtle passages found everywhere. Seeing for joy is a happy supplement to seeing for information.

2. The development of an attitude of reflecting, questioning and evaluating color experiences. The inquiring mind usually develops into the appreciative mind.

3. The creation of self-confidence and desire to express one's self freely in color, unhampered by theories that too frequently give commonplace, uninspired results. Many exercises divorced of controls imposed by use, materials, design, or subject should be attempted to enrich color vocabulary and experiences. Fine color schemes all suggest spontaneity of conception.

4. The comprehension of the functional and emotional aspects of color; a realization of the demands imposed by questions of use, scale, texture, medium and idea. The problems involved for instance in planning a bedroom, a stained glass window, a package to sell perfume, an automobile, or the selecting of colors to express moods in an illustration or a painting. These practices are of vital interest to the adolescent.

Color study should not be limited to the field of Art. The wonders of color are infinite in number and character. Every "ist" of modern life, the Physicist, the Physiologist, the Naturalist, the Chemist, the Industrialist, the Psychologist, as well as the Artist, have amazing "wonders" to contribute to the story and study of color.

The physicist tells us of the nature of color and light, of its tremendous speed of 186,000 miles a second, of the composition of distant stars and planets. He demonstrates that we can see only one of the sixty octaves of radiant energy. The others are heat waves, radio waves in the longer range, and x-rays, radium emotions and the newly discovered cosmic ray in the shorter range. All these have magnetic and electric energy and all travel at the same rate of speed. What an interesting, but futile exercise of the imagination it is to try to visualize a color sensation that one would perceive if our eye were attuned to a greater range!

The physiologist tells us that color does not exist in the outside world. It is sensation—a mental interpretation of nerves stimulated by light waves. The long waves, thirty-six thousand to the inch, create a sensation of red, and the shorter ones, sixty-one thousand to the inch, purple. The physiologist explains the reasons for color illusions, after-

images, and color-blindness. Each eye sees color differently because of a varying number of red and cone-like nerves at the back of the eye, and even the left eye records a color lighter or darker, cooler or warmer, than the right eye.

The naturalist comes in contact with color schemes and color textures that man cannot approximate. No artist or chemist can produce the intensity or luminosity of poppy red, or the iridescence of a butterfly's wing. The naturalist studies nature's great game of camouflage from the polar bear of the north to the brightly hued insect of the tropics, and has taught men to do likewise in their military activities. He points out that in nature the male is handsomer than the female, an order which civilized man has reversed in his costume. He has noted color preferences of animals. Bees place more honey in blue hives than in yellow ones; mosquitos do not like white clothes; and flies will not touch blue sugar. Seldom does nature make an inharmonious combination. She is a superb master in combining greens. She uses a wondrous palette to color her world, which ranges from microscopic life to impressive northern lights.

The chemist is the modern alchemist. He is able to abstract from coal the most brilliant dyes that the world has ever seen. He tells us of many accidental color discoveries in times past that became a family secret for centuries, and that now are easily analyzed in the laboratory. The secrets of Persian dyes, the Venetian glass-blower, or the Chinese potter, are now ours. We have all these and thousands of other hues and shades, undreamed of even a decade ago. New thrills in color undoubtedly will continue to come from the experiments and discoveries of the chemists.

The industrialist realizes that we have emerged from a drab age into an age of color. Stores, automobiles, and fountain pens are no longer all black. Even pots and pans, bathtubs, iceless refrigerators, have taken on color. The industrialist also realizes the necessity for maintaining a uniformity in color for his product, whether it be a beverage, a can of paint, or a dish. He now listens carefully to the finding of the advertisers and psychologists as to color preferences of the public.

The psychologist catalogues us into three color groups: the objective type which like colored objects for their own sake, the associative type which links colors with ideas, and the subjective type which is the most sensitive to color emotions and reacts to color as to a personality. He states, for instance, that blondes are prejudiced in favor of light cool colors and white; brunettes prefer rich red colors, for these are the colors that give a good report of their types. He helps us understand the continually changing attitude toward color from youth to age. He tabulates colors that break down sales resistance, and studies our color interests from the viewpoint of our physical, social and intel-

lectual make-up. He is invaluable in assisting us to manipulate colors emotionally.

The artist and his profession, however, has the most to contribute to the study of color. The great colorists of the past and present work by principles gained through experiences. One would ask in vain for a theory of color from an Arab rug weaver, a French stained glass worker, or a Japanese textile designer.

Certain principles can be found applicable to all good color schemes. To discover these and to give a richer appreciation and direction to practice, is of the greatest importance in the teaching of color. An exhibition of twenty or thirty satisfying color schemes should be arranged and analyzed for common practices. This exhibit could consist of color reproductions of paintings, illustrations, advertisements, rugs, as well as actual examples of silks, cottons, and wallpapers. From these, the average high school class can discover many principles, like the following: (1) Every satisfying scheme, when viewed at a distance presents a dominant hue. (2) Every color retains its spectrum relationship; the yellows are lighter than the oranges and green; the greens are lighter than the blue and purple in any scheme. (3) Color is related to shape. Subtle shapes require sensitive hues. (4) The cool colors are enhanced by lighter backgrounds; the warm colors by darker backgrounds. (5) The color sequence in a design is more satisfactory if the change is from dark to light center, also cool outside to warm center. (6) White is as important as any hue. (7) Any combination of hues is possible if colors are adjusted in tone and chroma. (8) Modern color schemes strive for rhythm of tone and chroma. (9) Color schemes vary with use. A scheme that delights as a wall hanging will seldom serve in a rug. (10) Color schemes must vary according to technique, whether realistic or decorative in treatment.

These and other principles should be freely and frequently applied in various color exercises, done solely for the sheer joy of handling color combinations and increasing color vocabulary. Marbled papers, spatter work, and tied and dyed fabrics are suggestions. Interest is maintained on the highest level by frequently changing the materials and mediums. This sort of development should precede color problems conditioned and entangled by idea, design, or the problem of use. Applied color problems should first be related to the individual, his needs, and interests. From these, they can and should expand in the realm of the problems of the manufacturer, the advertiser, and the artist. The part color can play and does play in modern life, in a richer life, in a creative life, would then be manifest.

IX. DRAWING

THE DERIVATION OF DRAWING CONTENT

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There are certain guiding principles set before us in the field of education which have been accepted by most educators, but which have never been fully practiced. I hold to the assumption that education, to be useful, must be based upon or closely related to modern civilization, using only such elements of the "traditional" as will best interpret the present for us. I also subscribe to the assumption that drawing is one of the fundamental tools of all art work, as well as an influential factor in shaping modern life. You may now appreciate why I am interested in seeing that drawing is given its proper place in the curriculum and that its content contribute a full share of growth to secondary school pupils.

The term drawing is used here in its generic sense and because of its historical significance. In the sense that "drawing" is a tool of "art" or a basic factor in producing art, we might almost use the terms synonymously. When using the term "drawing" in connection with industrial arts or engineering, it has so often come to mean "mechanical" drawing while in the fine arts department "drawing" is often looked upon as "art." This difference seems to give color to the mistaken idea that "art" is something which is removed from industrial arts and engineering or that industrial arts and engineering have nothing to contribute to art. Such ideas are clearly erroneous because art is a quality that should permeate all phases of educational, economic, and social life. For the present discussion, the term "drawing" simply designates the process by which significant lines or areas, or both, are made to appear on a surface through the use of pen, pencil, brush, graver or other instrument.

Drawing has been practiced from ancient times to the present moment. It has been taught formally and informally, in private and public schools. Its place in the curriculum has been optional at times—at times mandatory. It is interesting to know that Boston was the first city to give drawing instruction in its public schools and with the growth of industry in Massachusetts, mechanical drawing came to be demanded. It is my impression that the industrial stimulation given in those earlier days caused drawing instruction to be construed too narrowly. The formal exercise work, upon a "plate" basis, as a method of teaching drawing is still being practiced by some, much in the manner of those earlier days.

Although drawing has an ancient and rich history we are still as far, seemingly, from being agreed as to what the content of drawing

courses shall be as we are in many other subjects. We may well ask what should be the procedure in determining what shall be placed in a course of drawing for a given level. Obviously, numerous bases present themselves. The paste pot and scissors may be used by which we take from prepared courses of study such items as suit our fancy. We may develop a course empirically. This is a very common method. We may make analyses of literature, activities, skills, or knowledge pertaining to drawing or certain phases of it. Again, we may build a course upon the textbook we intend to use. Some of these methods, of course, are more satisfactory in their ultimate results than others.

Since building courses on or around a textbook is a common practice and, since many of you teach mechanical drawing, may I report an investigation I made using textbooks? The following criteria in the selection of texts were set up: (1) Recency. Only recent texts were selected. (2) Texts must cover the subject in a general manner. Special type or problem texts were excluded. (3) The texts to contain the several phases or subjects usually classed under the broad heading of mechanical drawing. (4) The texts to be in actual use in various schools giving drawing courses.

The analysis is based upon an arbitrary division of subject matter into the following categories: (1) Applied geometry, (2) architectural drawing, (3) developments and intersections, (4) graphs and diagrams, (5) instruments and their use, (6) lettering, (7) map and topographical drawing, (8) orthographic projection and working drawings, (9) pictorial representations, (10) practice and conventions, (11) structural drawing, (12) technical sketching, and (13) perspective and shading.

This grouping seemed logical and common in ordinary practice. Obviously, not all texts would include all topics. The topics, however, cover the content of all textbooks analyzed as far as subject matter bearing directly upon drawing is concerned.

Four of the seventeen texts analyzed did not introduce applied geometry, twelve did not devote any space to architectural drawing, three did not mention developments and intersections. Graphs and diagrams received no consideration in fourteen texts. Three texts did not give any space to instruments and their use and one did not mention lettering. Fourteen texts did not consider map and topographical drawing as having a place in a text on mechanical drawing. Obviously, all texts on mechanical drawing would devote some space to orthographic projection and working drawings. Four texts have not given a place to pictorial representations. Practice and conventions were considered unnecessary in two texts while structural drawing did not appear in fourteen texts. Technical sketching and perspective and shading did not have a place in seven texts.

Certain definite impressions are forced to one's attention, the prin-

cial one being the wide divergence regarding what should be included and what space should be devoted to certain subject matter elements in a textbook on drawing. Clearly, the space devoted to a subject may not be a good criterion by which to judge the intrinsic value of a textbook. Yet space allotment does indicate to some extent the degree with which the author holds a topic to be important. It may also indicate the author's peculiar bent, training, teaching or methods. This becomes apparent in a comparative analysis. This may account for the seeming undue space allotment to certain subjects and to topics which might be called extraneous material; that is, subjects which can be presented briefly and which do not affect drawing in any fundamental manner, such as instruments and materials.

Another conclusion that becomes obvious is the backward look on the part of so many authors. Few mechanical drawing texts analyzed in this study have shown a departure from the traditional both as to content and method. The tendency is to grow by accretion.

The analysis also indicated that certain criteria for judging a mechanical drawing textbook might be established. The first is that of organization. Several of the texts had portions of the same subject matter scattered throughout the book. This may be suitable under certain conditions but such a text becomes difficult for the student to handle. We may ask: (1) is the material organized into easily assigned units, (2) are the units of reasonable length?

A second criterion indicated by this analysis is that of thoroughness. In relation to the teacher: (1) are there sufficient satisfactory problems in each unit presented in the text, (2) are there suitable references? In relation to the student using the text: (1) is the text suited to his age, (2) is the text satisfactorily illustrated, (3) are the essentials readily discernable, (4) has extraneous material been kept at a minimum?

While on this subject of "mechanical" drawing courses, I want to make a few statements which are not so directly concerned with content derivation. First, I question the advisability of teaching so technical a subject in such a formal manner to the average adolescent. In my own experience, the results have not been worth the time devoted to such courses. If drawing courses have a vocational or professional view we can justify the time, if not always the method. But to do the work without a definite relation to shop or industrial arts courses reserves severe criticism, to say the least. Let us not limit ourselves to this specialized type of drawing, but rather broaden youth's concepts of and use for drawing by applying it to problems growing out of its activities and interests. To do this properly we will need teachers who are equipped with more than a course in mechanical drawing. We will need teachers who know the elements of design as well as processes, and who understand the meaning of integration. Most of all, teachers

should have a sense of appreciation for things which make for a worth. We will not only need a teacher with broader conception of drawing, but one with new concepts of the "drawing room" as well.

There are two main reasons for teaching drawing, namely: for preparative purposes, and as a means of expression. In other words, drawing might be thought of as an extension of reading and writing. And in this way appreciation would be a direct outcome. If we accept the principle that drawing is a language we readily see that this has educational and sociological implications which may aid us in the determination of a suitable content. In making a sociological approach to drawing through the medium of newspapers and magazines, I find almost innumerable types and techniques. These resolved into an clear and instructive grouping when analyzed upon a functional basis. A definition and brief description will help to indicate the significance of this approach as well as indicate the marked social, cultural, vocational and leisure-time implications.

My analysis divides drawing into seven classes:

1. **ANALYTICAL DRAWING.** Analytical drawings are descriptive drawings which give specific information in the form of a diagrammatic illustration. In this class of drawings we find the technical and semi-technical ideas expressed in illustrative fashion, rather than in orthographic projection. The analytical drawing, as defined, is used as an educational medium. Advertisements dealing with technical details, science textbooks, and other forms of illustrated instructional material are usually replete with analytical drawings.

2. **DECORATIVE DRAWINGS.** Decorative drawings give more attention to pattern, tone, light and shade, general artistic interpretation and appeal to the aesthetic. The drawings of this class are distinguished because of their artistic nature. Their function is to make a favorable appeal. The motif in decorative drawings may be drawn from any source but the mode of treatment determines its artistic quality. Drawings of this class may have utilitarian purposes as for example a border design, head-piece, or "color" spot, but without it must elicit a favorable response.

3. **GRAPHS AND DIAGRAMS.** Graphs and diagrams are drawings which present statistical facts or certain technical data in diagrammatic schemes or charts. Numerical data, if at all complex, are difficult to grasp in their entirety. By reducing such data to a graphic form, significant facts are easily and quickly conveyed to the reader. Line charts, bar graphs, and various pictorial diagrams are both popular and extensively found in advertising, textbooks, magazines and newspapers.

4. **INSTRUMENTAL OR WORKING DRAWINGS.** Drawings made with instruments such as architectural plans, drawings of mechanical devices, structural construction and the like are classed as "instrumental" drawings.

or working drawings." Drawings of this class are basic to all constructional and manufacturing processes. This type of drawing, to a large degree, forms the language of industry. Because of their technical nature such drawings are comparatively rare in popular literature. Popular semi-technical magazines use a modified form of mechanical drawing while the strictly technical papers speak a "pure" language.

5. LETTERING. Drawings consisting of hand lettered work are classed as "lettering." Many drawings contain or consist entirely of hand letters. This is done in order to increase the appeal of a design or to make the reading matter more legible. Larger letters and better spacing can be had through hand lettering than through type.

6. MAP AND TOPOGRAPHICAL DRAWING. Map and topographical drawings represent the earth's surface cut into sections or areas, with or without indications of the nature of the surface or objects thereon. Map and topographical drawings have been an important factor in navigation, war, exploration and survey work. This class of drawings graphically determines the location of all property lines whether individual or national in scope. Tourist travel by auto has made map reading a necessity for everyone.

7. NARRATIVE DRAWING. Narrative drawings give a description in the form of representative or "story-telling" illustrations. This class of drawings is by far the largest group used in making a popular appeal. It runs the whole gamut of representation in pictorial form from the child's simple illustration of a nursery rhyme character to the professional artist's story illustration, cartoon or mural painting. This type of drawing is most easily comprehended as it is usually realistic and interpretative in nature.

Some 314,844 square inches of printed matter were measured in making this study. Of this amount, 89,921 square inches of space or 28.56 per cent were devoted to drawing. That per cent indicates, to some extent, how much "picture reading" we do. Another interesting thing to notice is the relative ratios these various kinds of drawing have in popular reading matter. Briefly summarized we have: (1) Analytical, 1.9 per cent, (2) decorative, 7.1 per cent (one-fourth of the total), (3) graphs, .17 per cent, (4) instrumental, .14 per cent (least of all), (5) lettering, 4.6 per cent, (6) maps, .20 per cent, and (7) narrative, 14.2 per cent (one-half of the total).

From such an analysis, one cannot escape the conclusion that drawing as an important tool subject, is a means of interpreting ideas and giving expression to ideas, and that it should be taught or made available to every boy and girl in the public schools. It follows that instruction will fall into two types of drawing courses, namely: basic interpretative instruction for the rank and file of pupils, and specialized courses with a vocational purpose. The interpretative instruction should bear on the reading of working drawings, making of analytical

drawings, and giving an understanding of graphs and maps. Specialized courses should be conditioned by commercial and industrial needs. Such courses should deal more extensively with commercial art in which narrative, decorative, lettering, and instrumental types of drawing are important.

We must also consider drawing on various school levels. The broad generalized type of course in which the pupil comes in touch with the various kinds and uses of drawing is in harmony with the principles of guidance and self-finding experiences so characteristic of the junior high-school curriculum. General drawing will also function for integration. With the control of technique comes the realization that drawing may be used as a tool with which to solve certain problems, develop new projects, interpret ideas, and secure greater appreciations.

Drawing, in this sense, meets the social criterion for content as satisfactorily as any of the other subjects. It possesses fundamental values and can be set forth as definitely as other subjects in the school program. If we accept drawing as a phase of language efficiency, it can be justified as a constant. There is no doubt as to drawing having a place on the elective list. It qualifies here on the grounds of ultimate professional and vocational ends, and avocational or leisure-time needs. But, vital work must be included, work that is psychologically and socially suited to the interests and needs of pupils.

I offer the following proposals in summary:

1. All pupils should have a general knowledge of all common forms of drawing in order that they may interpret graphic ideas correctly in the acquisition of knowledge. The training in graphic expression should be broad enough that data and ideas may be presented graphically in any ordinary life situation. Particularly should there be ability to use and interpret such forms of drawing as maps, graphs, and analytical and pictorial representations. Each pupil should be able to letter legibly and to read simple working drawings accurately.

2. A basic or general course in drawing is recommended for all junior high-school pupils. Such a course would be a foundation course for those wishing to specialize in drawing as well as those taking it as a part of their general education. Less emphasis would be put on skill, and more on knowledge that is useful in expressing ideas even though the drawings do not approximate the technique of the expert. Drawing would be given as a fundamental subject. The emphasis would be on ideas to be expressed rather than on the technique with which they are expressed. A similar, though simplified program might well be established on elementary school levels. The discovery of talent should be a part of the junior high-school program. Talented pupils would be advised to take certain specialized courses given in the senior high school.

3. The drawing courses on senior high-school levels may take on aspects of special vocational lines for those distinctly talented, or those having made an occupational choice. The element of appreciation and sound aesthetic judgment should find a place in all courses. Courses of a vocational or specialized type should be based upon industrial and commercial needs and practices and not upon the basis of traditional or academic methods. These narrower methods often kill interest and stunt the growth of individuality which in certain types of drawing is the principal means of bringing recognition.

4. All courses in drawing would be built upon the principle of using problems fitting individual interests and abilities rather than sets of required abstract exercises. Many problems will arise from other courses and texts. This makes for a natural integration. Conceived in these terms and organized upon analagous principles, drawing will receive the recognition it well deserves. Best of all, our children will receive the training they will need to help them function effectively in our modern industrial civilization.

PUBLIC-SCHOOL APPLICATIONS

E. A. HAUENSTEIN

Supervisor of Industrial Arts, Lima, Ohio, Schools

It is my pleasure to continue the plea for more drawing and more types of drawing than we now have in our public schools throughout the country. It is possible, through drawing; to bring into the lives of boys and girls everywhere, a knowledge of the practical things of life and to provide avenues for expressing this knowledge; to develop useful skills for graphic communication through representation, illustration, and design; to do construction in three dimensions; to train the judgment to keen discriminations and wise choices which will function later, as circumstances permit, in the selection of apparel, the selection and beautifying of the home and garden, and in city planning; to develop skills which will be productive of joy in school life and give resources within, which enable one to make worthy and happy use of leisure; to develop useful skills which will lay a foundation for those skills that may be gained later by more intensive vocational training; to guide pupils to select the vocational field to which they are most naturally adapted; to give the youth the information and experience which will interest him in real situations and enable him to do more effectively the things that most individuals are called upon to do without respect to their vocation.

I am proposing the following units of drawing, and shall discuss each of these briefly:

Unit 1. Layout Exercises. To become acquainted with the basic principles employed in drawing; to become familiar with the use and

care of equipment and tools used in drawing; to acquaint the student in a general way with the language of drawing; that lines and symbols used in drawing are for the purpose of conveying ideas, just as the symbols of any other language are used to convey ideas; to do simple layout problems in two dimensions, involving the use of the alphabet of lines, T square, triangles, scale, pencil, etc. This may be called the "foundation unit" and should therefore come first or near the beginning of the general course.

Problems for this unit may be secured in the following manner: (1) Suggestions from students. (2) From patterns or templates the teacher may have on hand. (3) Suitable problems found in mechanical drawing texts.

Unit 2. Lettering. To learn to do free-hand lettering with pencil and pen; to learn about proportion, design, form and spacing of letters.

The ability to letter well is an asset to most people. People who can letter find many uses for this talent, such as: marking packages, making window cards, posters, etc. Lettering is a subject that is fascinating. It has gone through an interesting history, and the learning of lettering is not really difficult if the elements and procedures are properly stressed at the outset.

Problem sources: (1) Lettering manuals. (2) Lettering plates. (3) Varied types of lettering used in commercial fields, magazines, etc.

Unit 3. Shape Description. To learn to interpret and understand drawings and blueprints; to learn the basic principles of projection and construct simple drawings in three dimensions.

People from every walk of life, regardless of vocation, are often confronted with the task of reading and interpreting drawings and blueprints, whether it be of a mechanical device they wish to purchase, house plans, mechanical devices used in the home, etc., wherein a lack of such ability might result disastrously. Likewise they are called upon to make simple drawings, such as plans for the future home, for remodeling the house, office, some device they wish to have made, etc. This unit offers training which will help them meet such situations. In short, a general knowledge of drawing is an asset to everyone. Problem sources: (Refer to textbooks for principles and procedures.) (1) Drawings and blueprints actually used by manufacturing concerns. (2) Architectural and building magazines. (3) Popular Mechanics, Home Mechanics, Home Craft and magazines of similar nature. (4) Articles from home. (5) Assignment by instructor.

Unit 4. Geometric Constructions. To apply the elementary principles of geometry as used by the draftsman in designing useful articles.

We may all agree that the infinite curve is more beautiful than that based upon the circle. But we probably will be unanimous in opinion that to produce such a curve in problem designing requires a good knowledge of design principles. This does not obtain with such

force in the geometrical curve. The mechanical phase of production is relatively simple. The results are more pronounced. The curve may be dynamic and forceful, and interesting if used properly with straight lines. Let us provide problems within the pupil's ability, both structurally and decoratively. The compass curve is within the ability of the pupil at this level. Just as a well-designed dining room table needs no defense, so the curve based on the circle needs no defense. Furniture had its inception in architecture. It borrowed from the architectural orders decorations and motifs. These all employed geometric curves, and no one will deny their beauty, their force, and lack of monotony. One may point to fine examples of furniture in which geometry is freely used.

Problem sources: (1) Problems used in sheet-metal shop. (2) Problems for general shop use which employ geometric principles in their construction. (3) Problems from drawing texts.

Unit 5. Color Values. To acquire a general elementary understanding of color and color values; to develop an ability to see pattern in black and white.

Color is perhaps the most easily sensed of all the elements of vision. It is everywhere around us. It is in our clothing, our home furnishings, our books and magazines, our buildings and everything we buy. We use it in selling and advertising. Color inspires literary expression, personalities, events, music, moods; even tastes and odors are described in terms of color. Physicists are concerned with the chemical effects of color and light, while physiologists are interested in effects of color upon humanity. The artist's interest is in pigment mixing and its effects upon the eye and mind. Most of us are interested just for enjoyment. Color is a constant and dominant element, and inextricably interwoven in our modern living.

These facts alone are ample justification that the "COLOR VALUES" unit is worthy of a place in the General Drawing scheme, primarily for the sake of those boys and girls who are not enrolled in the art classes of the school, or have no other means of learning about this important subject.

Unit 6. Inking. To acquire a reasonable amount of skill in the application of inks with pen, brush and ruling pen; to become familiar with inking procedures. The work of this unit overlaps or is embodied in many of the others. Technique in applying inks may be judged by the skill displayed in the work of other units, or it may be employed as a unit in itself.

Unit 7. Developments. To learn about the theory of development and make elementary applications in drawing problems.

Development drawing is, in one sense, graphical mathematics. By means of it one may solve by drawing what would otherwise require the use of higher mathematics. The final result in each case would be a

drawing. A knowledge of developments is useful to everyone in order that: (1) He may know something of the industries dealing with sheet materials, as a part of his general store of knowledge. (2) He may appreciate things made of sheet material. (3) He will be able to design and make useful articles in his home work shop as a leisure time activity, such as: lamp shades, mail box, dust pan, funnel, radio speaker cones, etc.

Unit 8. Free-Hand Sketching. To become acquainted with the material and methods used in making free-hand sketches; to develop some skill in free-hand sketching.

All technical draftsmen find frequent use for free-hand sketching. The general principles are the same as in mechanical drafting. Free-hand drawings have certain advantages. They are quicker and cheaper to make and in many cases more convenient. A large portion of finished mechanical drawings are preceded by free-hand sketches. The free-hand sketch has definite uses. It serves as an aid in working out designs. It is frequently the preliminary step in laying out a drawing. It is used by the designer in transmitting his ideas to junior draftsmen. It is used as a means of recording ideas obtained outside of the drawing room that are later to be used in finished drawings. It serves as an aid in conveying information to others, as from foreman to worker, salesman to buyer, or teacher to pupil.

Skill in free-hand sketching is desirable for everyone, and a necessity for those engaged in industrial and mechanical work.

Problem sources: Models, machine parts, house details, etc.

Unit 9. Working Drawings. To make practical application of the principles covered in preceding units; to make assembly and detail drawings; to properly dimension a drawing.

In order that a workman can definitely foresee how to construct an object, a drawing must be made that will present mechanically the idea of its construction and its sizes. A picture of an object would not do this, as a picture merely presents a general notion of the object's appearance. It is called a working drawing because it can be worked, or made in the shop, from the views and sizes which the drawing furnishes. This unit will provide experience in layout, arrangement of views, principles of projection, dimensioning, sectional and auxiliary views, inking, etc.

Problem sources: Articles to be made in the wood shop, metal shops, articles to be made at home, at the mill, or machine shop. Student interest should largely govern the selection of problems.

Unit 10. Design. To develop good taste and appreciation of whatever is fine in materials, design, decoration and fitness to purpose; to acquire an introductory understanding of the technical skills common to the designer.

Under design guidance we find that designed projects become more noticeably individual in character, lighter and better in construction, and more fully adjusted to the environment. The student's interest and initiative in his work are strengthened, he rejoices in this medium of self-expression, and he completes the truly valuable cycle of the educative process of evolving his own idea and crystallizing it in completed work.

Unit 11. Furniture Drawing. To make application of design principles in designing useful articles of furniture for the home; to learn about the characteristics of period furniture; to learn something about factory production of furniture.

Few items of equipment are as important in making one's home pleasant and agreeable as the furniture used in it. If we can do nothing more in this unit than provide training and experiences which will help to guide the boys and girls in future purchases of home furnishings which have beauty, comfort, and fully serve their purpose, we shall at least have turned in the direction of a long felt social need. Emphasis should be placed upon the importance of designing articles of furniture which will serve definite needs in the home.

Unit 12. Architectural Drawing. To learn about symbols, facts and practices employed in drawing buildings; to learn to read house plans and know something about the value of specifications; how to beautify the home lot by applying elementary principles of landscape design.

The field or scope of architecture is as broad and varied as the activities and life of man. All architecture may be classified in three general groups, namely: domestic, commercial or industrial, and monumental. In the general drawing course we are concerned primarily with that phase of architecture which influences every human being: the home. Houses are designed and built by man. (I have seen some which were only "built.") Their beauty, convenience and comfort depend upon the designer, who is influenced largely by the client whom he is serving. Herein lies a challenge for a teacher, to cultivate in our future citizens an appreciation for the beautiful, the appropriate, in home designing. What we must accomplish is the training of an artistic consciousness in the minds of our pupils so that even the small details of everyday life may be beautiful.

I have used the following problem with encouraging results. First, the students are asked to draw plans of their respective home lots, indicating the space occupied by the house, garage, gardens, walks, etc. Next they are asked to draw plans for improvement with as little expense as possible. The oval and round flower beds in the center of the lawns are done away with, and in place of a high board fence, a hedge is planted. The awkward angles about the house are concealed by shrubs, and the garbage can and place to burn papers are hidden by

hollyhocks or shrubs. The paths around the garden and the shrubbery are made to curve, suggesting the sense of distance and space. A well designed flower box is made to grace an erstwhile uninteresting window. The interior of the house also comes in for its share of improvement, making it more attractive, artistic and convenient.

Unit 13. Duplicating. To learn about the various methods of duplicating employed in business and industrial enterprises; to learn processes of duplicating by making blueprint and Ozalid print, by using the mimeograph or multistamp machine; to make duplicates or enlargements by using the pantograph; to learn about the photostat machine, the hectograph, and how zinc cuts are made and used.

A single drawing is very limited in its use, quite as a single book or newspaper would be. Not many persons could use it at one time. It would soon be worn out from continual passing from hand to hand. To reproduce drawings through hand copying would be an expensive process, hence the need for duplicating by machine is therefore an economic necessity. There are several methods of doing this in quantities at a very small cost.

Unit 14. Map Drawing. To learn to read maps and understand the symbols used in map drawing; to become better acquainted with the city, county, state and country by drawing useful maps.

The ability to read and understand maps is a necessary part of present day education. Maps vary in size and importance from small maps of city lots to those which show the entire surface of the earth. They are used for locating the positions of cities, states, rivers, mountains, lakes, and the like. They are used as an aid to travelers on land, water and in the air. They are valuable as records in showing the boundaries of properties, such as farms, lots, mines, explorer's discoveries, and so forth. There are various types of maps, such as, road, railroad, relief, political, military, contour, and historical maps as well as many other special types.

Problem suggestions: A hike into the country. Planning the vacation trip. School zone maps. Precinct map. Map of a city. National highway map. County map.

Unit 15. Graphs and Charts. To learn how masses of statistical data may be presented in condensed form by graphical means; to learn to read and understand graphs and charts; to gain experience in making graphs and charts.

In practically all newspapers, magazines and books we read we encounter graphs and charts. These are used because they represent certain kinds of facts much more clearly, quickly and in less space than could be done in any other way. For example, we might show the relationship of the population of different countries by drawing parallel lines of different lengths, the length of each line being determined by the number of people in the respective country. This same infor-

mation might be given in printed form, but the graph or chart gives all the information at one glance. The use of graphs and charts for expressing ideas and presenting facts clearly is so common that everyone is obliged to know something about them.

Problem suggestions: Class grades. School attendance. Rainfall. Drawing room organization. City management. Production charts. Sales charts, etc.

Unit 16. Block Printing. To become acquainted with the processes employed in making block prints; to design, carve and print a block for individual use.

As a school problem, block printing stimulates the creative impulse and offers practical application for the principles of art, thus affording correlation with other activities of the school, such as printing, school publications, household arts, music and the like. The black print readily adapts itself as a medium for original expression, just as the painter uses brushes, paint and canvas to give form to his vision. Block printing may be used to good advantage in many school art projects when the elements of drawing, design, composition and color are stressed. Block printing may be applied to fabrics as well as paper. In making illustrations and posters, schools will find block printing an economical and satisfactory method of producing cuts. The school printing its own newspaper, magazine or yearbook may produce truly artistic productions without turning to the engraver for "art work."

Problem suggestions: Address labels, announcements, booklet covers, book plates, calendars, Christmas cards, Christmas wrapping paper, congratulations, counter cards, covers for bridge scores, Easter greetings, hand books, illustrated price cards, letter heads, menus, monograms, party invitations, place cards, post cards, programs, prints in color for framing, tally cards, tickets, valentines, etc.

Unit 17. Commercial Art. To acquire an introductory understanding of those phases of art which are used in the preparation of advertisements and the sale of goods.

There are few better problems than the poster, for it applies the principles of drawing, color and design so well and in such a practical way. It really has human appeal. The design element is very strong, and the lettering is an integral part of the design. The class is interested in posters for we are literally confronted with them in every line of work. No matter where one goes, he is constantly being reminded of certain facts through the channels of posters. Poster advertising, because it is a medium that is seen and understood by the greater number of people in a community, is doing a great service in influencing American home life. A poster must be assimilated by the mind and eye at a glance. It must be "intelligence on sight." Poster art is very fascinating and a subject which demands not only a knowledge of

color and technique, but also some knowledge of the science of advertising.

Instruction in layout or tentative sketch, the technical principles underlying balance and proportion, choice of type for each kind of poster, effective use of English, the influence of size, color, position and repetition, must be grasped by each pupil. Posters announcing athletic events, plays, hikes, excursions, dances, etc., as well as posters advertising goods of local firms may be worked out.

Unit 18. Cartooning. To acquire some skill through practice in expressing ideas on paper with pencil and pen.

Cartooning offers greater "freedom of expression" than any other type of drawing. A cartoon often times pictures "truth" more forcibly than does a polished sermon from the pulpit. Talent along this line is often referred to as a "gift." If we discover such talent among the pupils of our classes, let us encourage this type of expression. If properly guided, it may reach the field of a profitable vocation.

Unit 19. Etching. To learn about etching processes.

Designs appropriate for this type of work.

This type of work has found favor with a few members of each class, and may be found useful as a leisure time activity. Equipment for this unit may be had at a very nominal cost and requires only small storage space when not in use.

Problem suggestions: Napkin rings, book ends, bowls, jewel boxes, paper knives, desk sets, book marks, and many other articles which have been constructed in the metal shop.

Unit 20. Chalk Talk Exercises. To develop speed in presenting ideas and facts on a large scale with chalk for entertaining purposes or for conveying factual and technical information in a rapid-fire manner.

On first thought we may not consider this type of unit as worthy of a place in the general drawing course, but when we consider its merits and possibilities, we will greet it in a more friendly manner. We first think of the Chalk Talk artist who appears before an audience and displays skill in drawing comics, character sketches and landscapes in color, for entertaining purposes alone. This is in itself worthy of merit.

The technical lecturer might well employ this means to bring information to his audience in a more understandable manner. A quick sketch will more clearly illustrate the point he wishes to make than a hundred choice words could possibly do. I attended a medical lecture some time ago with a friend. The doctor who had the floor at the time was discussing bone structure. He used the "chalk talk" plan and to my surprise even I could understand what he was talking about. The "quick sketch" plan might well be used by the teacher of geometry, geography, by shop teachers, scout masters, shop foremen, athletic coaches, etc. Diligent practice is required to become efficient in this

style of drawing. Several boys prepared and presented "chalk talk" programs before school assemblies and at entertainments. Several appeared before local luncheon clubs with short entertaining programs.

Unit 21. Term Project. To gain experience in organizing and presenting technical information by means of assembly and detail drawings.

Perhaps I can best illustrate the purpose of this unit by using a concrete example. A boy expressed an interest in the manufacture of artificial ice. He visited two or three local ice manufacturing concerns for the purpose of gathering information about materials, processes and equipment used. He studied the process from beginning to end. He learned about compression pumps, expansion coils, ammonia gas, liquid ammonia, brine tanks, ice molds, condensation, temperature changes, etc. He made crude sketches of the apparatus. His big task was to organize this new knowledge in such a manner that he could present it graphically.

Problem suggestions: Hot water heating system. The Delco system. Auto ignition system. Auto lighting system. The plumbing system of a home. Telephone system. Electric bell system for hotel. Sewage disposal plant. The electric iron. Radio. Blueprint machine, etc.

Unit 22. Special Drawing. To provide for drawing of special interest to students, not definitely classified under the given units.

CONCLUSION

This type of education is no longer to be regarded as a special subject, a pigeon hole in the educational desk, a mere patch on the educational quilt, but rather a well thought out design woven into the educational fabric, enriching every phase of the school, home and community life. Through its purposeful and cooperative aims, it commands the attention and respect of the superintendent and other school authorities, who, to a large extent, control its destiny.

THE DRAWING ROOM OF THE FUTURE

GLENN LLOYD ROBERTS

Smithfield, Ohio, Schools

The Hankammer and Hauenstein presentations have clearly shown the need for an improved content in Drawing, broadly conceived. My problem will be to house such a program in the future.

The first slide (showing a common drawing room) illustrates the more commonly accepted plan of high-school drafting rooms, which seem to have become both traditional and conventional in this country. A few short years in this standardized atmosphere tends to give rise to a pupil reaction which too often reflects all the attributes of a prison-like environment. The struggling young draftsman oftentimes

trades his name at the door of one of these classrooms for some identifying symbol such as "desk 34." There are many things wrong with such a layout, of which all of us are aware: the lack of adequate and uniform natural and artificial light, cramped circulation, an environment little conducive to study or socialization, and very few items of equipment which are typically representative of the more intriguing drawing rooms in industry.

School boards cannot be expected to appropriate funds for the construction of better rooms for drawing and design until they are made aware through such presentations as those by Hankammer and Hauenstein of the possibilities there are in this subject.

The next slide (showing a transitional solution) is a plan to fit present academic classroom standards. The fenestration, width, and ceiling height are all typical. The partitions shown are temporary or adjustable. Units may be added or disposed of almost at will for purposes of research and experimentation. The present instance combines such units as photography, blueprinting, instrumental and freehand drawing, along with the necessary administrative, research, and supply areas which such a layout requires. It should be noted that no student draws at a station more than twelve feet from a source of natural light. The cost of this layout will vary with the extent of the program attempted.

The next examples shown are based upon concepts previously reviewed. The expression of these concepts in architectural plans is naturally influenced and limited at all times by local needs and the dictates of good building practice. C. Ralph Fletcher has developed in this example (Fletcher's plan for an ideal design studio) a combination of the theoretical and physical aspects of the problem into an ideal situation. His solution is purely imaginative and was planned as a detail in itself and not as a part of any definite school plan already developed. Its purpose is one of application and revision to suit the changing factors required in any specific situation. It aims to satisfy the physical requirements for almost all of the content suggested by the previous speakers.

You will note that it combines freehand and instrumental drawing areas in one room and provides the auxilliary units such as blueprinting, photography, supply, conference, and office space. It is further planned to facilitate control by the teacher and is within each access of the school library and LABORATORY OF INDUSTRIES development, as indicated. Several unusual features and commendable constructions and ornamentations are included. An example of this is seen in the plan for a continuous mural decoration around the walls of the room, which will depict industrial developments related to drawing and design.

The next slide (Roberts' parti) shows a development of an entire floor in a high school building planned for 2,000 students. The core

of this school is frankly built around the various Practical Arts. The relationship between the Industrial Arts, Home-Making, Art, library, office, and general classroom areas will be noted. Two beautiful courts will be noted on either side of the main part of the building. The question of driveways, accessibility, central store and supply rooms, as well as office space, toilets, display cases, and the like are all included. But now what of the ultimate Drawing and Design Studio?

The last slide shows our proposal (Roberts' proposed Drawing and Design Studio for a school emphasizing Practical Arts) for an ideal studio. The allocation is 3,378 square feet. Between 85 and 100 pupils can be accommodated at one time. This makes an average area per student of 36 square feet. It will be noted that there is adequate storage space and that various types of drawing and design work may go on at the same time. These include instrumental drawing, color work, modeling, sketching, painting, library reading, blueprinting, photographic developing, and the like. The room is equipped with a marionette stage which can be used for the study of costume design and other things which permit stage dramatization. Splendid facilities for visual instruction are provided, and there are office and conference provisions for two teachers. Close relationships will be noted with the developments in dramatics, library, and the LABORATORY OF INDUSTRIES. A very lovely show case is shown just at the entrance of the studio, which is seen from the main corridor of the building as one stands in the vestibule. The natural lighting in the room, while as adequate as possible, is supplemented by an automatic artificial light control in the form of a photoelectric cell to give twenty-five foot candles.

You will note that the proposals above have been designated as "Drawing and Design Studios." This is done in the belief that this term more clearly describes a valid philosophy and more nearly expresses the picture of the artist-craftsman in his laboratory. It enables him to teach drawing and design technique in a setting which stimulates study, investigation, observation, experimentation, and judgment of new ideas as broadly conceived, it is hoped, as Hankammer and Hauenstein would want.

It is hoped that no one will feel that these suggestions for a drawing room of the future should be regarded as final. They are offered only as suggestions which even at this time present opportunities for further development in the housing of the Industrial Arts program.

X. CERAMICS

THINGS EVERYONE SHOULD KNOW ABOUT CERAMICS

HAROLD S. NASH

Professor of Ceramics, University of Cincinnati

It is wisdom every now and then in our teaching to put our classes aside and to construct a fresh perspective of our material. One is likely to mislay, in constant contact with the immature minds of students, some of the glory and the loveliness—even the pertinence—of one's subject.

In this little interlude we might try to draw a picture of ceramics that is a little broader than the average view. Perhaps we should enlarge our vision. Perhaps what we thought is just a medium of expression is really the fundamental structure to all that is important in living. From the time the first potter used clay, through all of civilization, there is scarcely any branch of knowledge or of thought that has not been made possible because of ceramics. Ceramics has served science well, but that is not its only claim to respect. It is even more amazing that the very first of the creative arts should never have grown old. After all the loveliness that artists have produced with ceramic materials, their possibilities of expression are still unexhausted. Clay, glass, and enameled metal stand side by side with materials that were born yesterday without the slightest evidence of diminished respect being shown.

I wonder sometimes if people who are unfamiliar with ceramics would not be surprised to know how utterly dependent they are on it for existence. If they live in a house of brick or stucco or concrete, they live in a house of ceramic materials. If the house is of wood, then it is probable that the lumber was kiln-dried in a brick oven and shaped by metal tools that were possible only because of clay refractories. The mortar supporting the foundations, the concrete walks about the house, the cellar floor, and the plaster walls are also of ceramic materials. Even the linoleum on the kitchen floor and the wall-paper have clay in them. The electric wiring, the plumbing, the hardware fittings, and the heating apparatus have required ceramic materials in their manufacture. The cutlery was first smelted in a clay furnace. What would we do without glass windows and electric lamps? We preserve our eyesight with glasses and employ physicians who would be of no more account than witch doctors had not the microscope been invented. We enjoy sports through binoculars, find pleasure listening to the radio, and accept the movies as a matter of course. We bathe in enameled iron bathtubs, cook on an enameled iron stove, and

preserve our foodstuffs in an enameled iron refrigerator. The walls and floors of bathrooms are tile; and the bathroom furniture is of porcelain or enameled metal. Tableware is glass or clay. And this is saying nothing about a heritage of art about which the world will never cease to marvel. There is not a bit of fancy in the statement that if ceramics were eliminated from our civilization, we should have nothing left but the stone age.

There are reasons, you see, why everybody should know something about ceramics. The first fundamental thing about ceramics everyone should have is a reasonably clear conception of what it is. In general it includes objects made of materials other than metals, which at some time in their preparation or fabrication require at least an incandescent heat (a red heat or higher). Objects of clay, glass, enameled metal, and certain cements are representative. The exclusion of metals at first seems a little confusing, since ceramic materials do often have metals chemically combined in them, such as the aluminum in clay, calcium in whiting, and oxides of copper, iron, nickel, etc., in glasses and glazes to provide color. In all these cases the metal element seldom appears in the metallic form; each loses its identity as an integral part of a material which is altogether different. Metal may be used to carry a ceramic material; vitreous enamel on copper, silver or iron; and metal may be used as a decorative adjunct to a ceramic material: gold or platinum decoration on glass or clay.

I suppose one reason why people are unaware of so much in ceramics is the fact that the raw materials are so common and of so little worth intrinsically. It takes better than average imagination to sense the loveliness of such simple things. Creative art does not lie in the scarcity of a medium; it is in the understanding one has of it and the understanding one brings to it. If a material is plastic and sympathetic, richly varied in its possibilities of expression, undeniably permanent and available to everybody, it is a grand material. The understanding one brings to a material must always vary with the artist using it, but an understanding of the material itself may belong to anyone who wants it. Everyone should have a simple, non-technical picture of the structure of clay and glass.

Clay is not a single pure material like iron or copper. It is a mixture of very fine grains of many kinds of rocks, many of the particles being so small they cannot be distinguished even with the aid of a powerful microscope. Not only is clay a mixture of many kinds of rock, but it is seldom made up in the same proportion of the same ingredients, or of the same ingredients in the same physical condition. For all of the special differences in clays, there are a few common elements of behavior that determine when a mass of rock fragments may be called clay. If such a mass of particles becomes sticky and plastic when wet,

and it becomes hard when fired to a red heat or higher, it is called clay. It is usability that determines its name.

In a broad sense there are two types of clay, differentiated because of the way in which each was formed. One is called a residual clay, and the other a transported, or sedimentary, clay. If clay is a mass of finely divided rock fragments, how did the particles come to be so fine, where did they come from, and why do the proportions vary so? They came from beds of solid rock that over a period of years were torn apart by weathering agencies like heat and cold, and slowly decomposed by natural chemical forces (really rotted away) until, some of their original material having been lost, a residue remained that answers our description of clay. Now, suppose a mass of rock has rotted away and left in its place a bed of clay. Such a clay is called a residual type because it remains or resides in the place where the original parent rock had been. Such a clay is often white, resists the softening action of heat to an extreme degree, and is only slightly plastic. Kaolin, or china clay, is of this type. The very nature of the material explains why primitive potters seldom used it except as a slip pigment. It is less common than other clays, too seldom on the surface to be easily available, requires a greater firing heat to make it practical than early potters could provide, and it is too short to be easily shaped.

The other type is called a transported clay, usually sedimentary. Imagine the deposit of residual clay we have just described slowly washed away by the rain to some rushing stream to be turbulently mixed with other rock particles from other sources. Some particles are so fine they are carried in the water for many miles. At each new bend of the stream small tributaries add fresh material to the turbid water. Lime, quartz, iron compounds, vegetable matter, are swept on together. The stream reaches a plain and broadens out. It becomes almost motionless, and slowly the particles of infinite variety settle to the bottom and build up as time goes on a complex mud of clay. This is the common type of clay, which varies markedly in its composition. It is much more plastic and workable than the residual type, and becomes hard and dense at a much lower temperature. In color it burns from an off-white through buff to red, brown, or black. It is the clay which primitive potters used for their pots and slip decorations. It is the clay of modern brick, plastic tile, terra cotta, and kitchenware manufactures. It is the clay we use in the classroom and scorn in our back yards. I wish in our elementary grades children might have the pleasure and opportunity of digging their own clay, preparing it, shaping it, decorating it with materials they themselves had dug, and finally firing it out of doors in an open fire. It is not too difficult to do. In that simple, direct contact with creative material at its source they would gain an understanding of art that many, many mature people of much schooling never attain.

It is easy to understand why a residual clay is simpler in composition and whiter and more chaste in spirit than its prodigal offspring. It finds its finest use in porcelain. Transported clay, like the cosmopolitan type it is, gathers all the vagabonds of the neighborhood to keep it company on its absorbing adventure. Rollicking, colorful, a bit vulgar, but sound at heart, it finally settles down. It is not pure enough for the spiritual idealism of porcelain, but it has given birth to a world of loveliness. From it came the pottery of the Greeks, Mohammedans, and early Chinese; the Hispano-Moresque wares, Italian majolica, French faience, Dutch Delft, and our own Pennsylvania slip wares.

After people have become acquainted with the sources of clay, they should learn something of its behavior in use and something of its structure. At some time they will want to know the differences between earthenware, stoneware, and porcelain. It is just as easy to learn the why of the differences at the same time. Our clays are made up of many kinds of finely divided mineral fragments. Suppose we see how these minerals influence its behavior. For our purpose (and, of course, it is not the whole story) we may separate the kinds of minerals into three groups. Some belong in more than one group, and some change their behavior, depending on the other materials with which they are associated. But aside from the element of plasticity to which most of the minerals contribute, the fragments may be divided into three groups on the basis of function.

The first group is the skeleton or refractory group. It behaves as a kind of bony structure to clay. It can stand a withering heat without softening. Like the human skeleton, it is strong in its individual parts, but as a mass it is too loosely put together, too open in texture, too porous, to be of much use alone. Kaolin or china clay is made up largely of particles from this group.

The second group is the fluxing or glass-forming group. It supplies the muscles and tendons to knit the refractory group together. At a much lower temperature than that needed to soften the refractory materials, this second group fuses to a glass which partially or wholly fills in the open spaces and by sheer adhesive strength glues the refractory group into a dense and imperishable mass. Common clays have a large proportion of this kind of material. With too much fire it may even dissolve the refractory material sufficiently to cause the piece to collapse.

The third group is the color group, and it is responsible for the varied color of clay bodies.

Now we may not only define but explain in principle earthenware, stoneware, and porcelain. The differences are essentially in the clay structure, and not in the glaze. Earthenware is porous, opaque, and of no specified color. It may be buff or red, like Greek pottery, or very

nearly white, like the earthenware of Wedgewood and Spode. The main thing is that in the clay body there is just enough of the glass or fluxing material to stick the refractory and color grains together, and still not enough to fill up the pore spaces between them completely. Most of the pottery made in schools is of this type. The reason some of it seeps water is due to the fact that unless the glaze fits perfectly, it crazes and allows the water to pass into the porous body.

Stoneware is opaque like earthenware, and usually colored, although there are examples of it that are quite white. It is different from earthenware in that it is not porous. It is glassy, or vitrified. In terms of the material, then, stoneware has enough glass-forming material of a suitable type not only to hold the refractory grains together, but almost completely to fill up the pore spaces with a viscous, sluggish glass. It is the coloring material that makes stoneware opaque. The T'ang wares of the Chinese are stoneware, also German salt-glazed ware, and much of our early American pottery.

"Porcelain" is a general term which includes those wares having a white, glassy, translucent body. In this group there are certain special types such as true porcelain, soft-paste porcelain, bone china, feldspathetic porcelain, etc. In all of them the essentials are the same. Porcelain is always a synthetic mixture, and never a single natural clay. It is made by combining white refractory grains (china clay, kaolin) with colorless glass-forming materials (feldspar, calcined bones). As a result the color group that occurs in common clays is eliminated, the pore spaces are filled with a colorless glass that transmits light, and except in thick sections the piece becomes translucent.

So much for clay. We have not said anything about glass, glaze, or vitreous enamels. We can group these together, because essentially they are all the same thing. They are all glasses, the compositions of which are varied to achieve different behaviors. Some must melt at a high temperature, others at a lower one. Some must be sluggish and viscous, others must be thin and watery. Some must expand and contract at the same rate as does clay, others must have the same coefficient as copper or iron. There are thousands of differences, and yet they are all very much alike. A glass, as we understand it in ceramics, is essentially a silica rock such as sand, quartz, or flint that has been made fusible at kiln temperatures by the addition of certain softening agents (fluxes). Some of the common colorless fluxes are soda, potash, lead, lime, and borax. Certain other materials are added to color glass, such as copper, iron, uranium, nickel, cobalt, and chormium. It is almost unthinkable that the prehistoric glass jewelry of the Egyptians, the gorgeous glazes of the Persians, the frail delicacy of Venetian glass, the mosaics of Byzantium, the cathedral windows of Europe, the painted enamels of the sixteenth century, and the covering of our

kitchen sinks and bathtubs are all the result of a little sand fused with some common earths and an understanding of loveliness.

I like to talk about ceramic materials; I love them. But I won't feel happy unless I can add a little about this understanding of loveliness that makes them beautiful. I am glad we are growing out of the last century of blighted tradition. I hope we shall be able to avoid a superficial sophistry that ignorance has labeled modernistic. In the arts, including ceramics, there is a fresh spirit that honors tradition enough to make it seem worth while to add to it. There is no point in just being different. But there are new things to say, and new ways in which to say them. There is no finer art with which to express these new things than ceramics.

CHILDREN'S CREATIONS IN POTTERY

MYRTLE MERITT FRENCH

Hull House and the Art Institute of Chicago

In my discussion I shall base my remarks for the most part upon experience and judgment obtained while teaching pottery to children at Hull House and upon observations at Hull House and in the juvenile department at the Art Institute.

At Hull House I have come in contact with children of many nationalities and of all ages—some below normal, some above, but in the main the average. Here the child comes to class because he chooses, and stays away if he pleases. Thus the pottery class has much competition in the form of pleasant weather, base ball, a nearby fire or an automobile accident. Necessarily, the teaching is less formulated than in most schools. One reason is because many of these children come from disorganized homes. Often they have no idea what day of the week it is, and the parents have too many things on hand to keep in mind the schedule of their children's art classes. A second reason is that many times the older children cannot come to class unless the younger ones come with them, for it is the part of the older children to care for the younger while the parents provide for the necessities of the household. A third reason is that the very nature of a settlement encourages creative and experimental methods—always searching for a better way to help those individuals who are so much in need of help.

At the Art Institute, the children usually come from more orderly homes, but here again the group represents the average child mind of a different class. Instruction at the Art Institute is more formulated because the ages are classified and the children come at the scheduled time and no other. However, much freedom is allowed if a child has ideas to carry out. Both at Hull House and the Institute, problems are

often assigned but a child is usually free to work on a different idea if he so desires.

In order to clearly indicate my line of thought, it will be necessary to state briefly my point of view concerning the nature of the art impulse, the relation of a good pottery teacher to her class, and standards of craftsmanship.

The source of the creative impulse may come from the emotions or from the mind—resulting in a creative Art of the emotions or a creative Art of the intellect. For the most part, primitive Art is entirely emotional growing toward the intellectual as the mind develops. So it is in a child's development. He must begin with the primitive and move toward the intellectual according to his capacity for mental growth.

A good teacher recognizes this general line of development and understands that a lump of clay with a hole in it, filled with round balls of clay beside which is a larger lump with a point on two opposite sides, is not merely what it looks to be. Instead it is an emotional, creative response to a bird and nest as seen and loved by the very young child. The wise teacher respects the creation, however crude. The piece is not worth putting into permanent form by firing, but it is worthy of temporary respect. In fact, probably the interest of the maker would have moved beyond it before the firing could be finished—so fast do the young emotions experiment and develop. At this period, there is little the teacher can do except to care for the mechanics of the classroom, stimulate a few stunted minds, and call attention to the best ways of manipulating the clay to obtain desired results. A young child is so intent upon ideas, that at first most of the pieces will fall apart, but experience and mental development soon begin to correct that fault. Only the best of the children's pieces should be fired unless there are important psychological reasons for doing so. Clay work, whether fired or unfired, should not be coated with paints. Children seldom do it unless influenced by the suggestions of adults who lack fundamental training in Art. To paint clay is to teach children to respect insincerity and imitations. The child likes to work with clay in the third dimension and he likes to paint, but practically always he recognizes them as two different mediums. He feels a glaze gives a permanent finish to the fired piece but the paint gives it no quality and is not permanent.

One of the most thrilling periods in a child's growth is the time when he has learned to handle his material sufficiently well to allow his emotions to run riot in lumps of clay. A teacher can learn more of the child's background, interests and imaginativeness at this time than at any other. One creation I remember was stimulated by the movie called, "Animals of the Lost World." On each end of a flat base was a lump of clay with vertical sides and on top of each lump was a

tiny animal facing the other animal. The base and two lumps were glazed black, one tiny animal was yellow and the other white. In a crude childish way the boy had given to others his own feeling of mystery, isolation and brute force. The whole thing was simple and direct.

Another boy of eleven, during a trip down town, saw a tall white building on Michigan Avenue near the river. Here traffic whizzed past and was rather congested. When next the boy came to pottery class, he made a slab of clay about six inches high and an inch and a half thick. This he cut into the general silhouette of the building, then fastened it in an upright position on a horizontal slab of sufficient weight to balance. Next he hollowed out the back and cut windows and doors surprisingly like the actual arrangement of the architecture. In front of the building he arranged the avenue with many tiny autos and in the midst of them, a policeman, considerably taller than the automobiles. There the boy clearly indicated what he thought of the ability of that policeman to direct traffic. The piece sold and he made another. The same thing happened twice and each time the policeman was far too large considering the size of his body but none too big considering the boys respect for his achievements as a traffic policeman. He glazed the building white with dark windows, the autos black, the street a light non-descript color and the policeman bright blue. The artist said what he had to say, . . . , and then stopped—as any artist should do.

A teacher can sometimes notice a tremendous growth as a child works over and over again at the same subject matter. I recall one case of an undeveloped boy making the same bird week after week. He made an oblong lump, pulled one end into a tail, the other into a neck and head and stuck it onto a stump—the piece was completed unless he decided to paint it with slip. One day when it seemed he must be tired of that subject and I thought I could not endure the sight of another bird, I said, "Joe, why don't you do something different?" He looked up blankly and said, "What else could I make?" I said, "Try an elephant or a horse." To my great surprise—and probably to his—he made a very good ox. From then on he made many animals of different kinds.

The pottery class affords splendid opportunity for the development of character and cultural background. One evening, a boy about thirteen or fourteen asked me to show him how to throw at the potters wheel. I complied and went on with the class while he worked at the wheel. Before he went home, he asked me to sign a boy scout paper stating that he was eligible for honors for throwing at the wheel. I explained that he could not actually throw but only knew how to start. I feared he would lose interest and stay away but he came regularly for over a year, working hard at the wheel. Finally one day I said.

"Well, Tony, you are getting so you can do this rather well." In a flash he jerked out a soiled, well-worn paper, which I had forgotten, and said, "Now, will you please sign this?"

At one time I had a group of unusually crude girls who had very little background. On the first day of class as they burst into the room they called loudly, "When can we have a party?" Their guiding spirit must have been near me for, without thinking, I replied, "As soon as we have the dishes made for it." We discussed the matter and decided the least we needed for a party would be a plate and a cup for each. Since none of them had made pottery, it took considerable time to learn to make a cup and plate they were willing to use, especially when they wanted to decorate them with slip painting. Next, they discovered that they needed a large plate for sandwiches, a big pitcher for hot chocolate, a bowl with holder for flowers, and other accessories. They also decided that candle light would be effective, and since they would need four candles, it would be better to make molds. Last of all they decided that favors would add to the fun. Thus, little animals were created for favors. By that time it was the end of the school year and we had our party as a successful climax.

Children usually have a splendid sense of color. One day we were working with glazes when a small boy arrived. He saw the glaze and asked whether his cup could be glazed. I inquired which color he wanted, and he asked what color was being used. I replied, "Yellow. Would you like your cup yellow?" Quickly and decisively the answer came, "The cup is too heavy for yellow."

One of the most difficult ages for the teacher and student is the adolescent age. Up to this the child has been exploring and experimenting in the realm of clay work and has been recording his discoveries and emotions to his own satisfaction. Suddenly he begins to develop a more critical discrimination; his mind and body change; and his emotions and intellect are confused by the effort to be an adult when he has only the knowledge and experience of a child. At this time the teacher needs to muster all her psychology. Here is an individual who needs and wants help but often does not like the other fellow to know he wants it. The pottery he has already done is considered a child's play. It is crooked, out of proportion, infantile in subject matter, and all the other things it should not be. At this point, a complete change is very essential, requiring something to indicate advancement, something to demand determination, physical strength, mechanics, accuracy, discrimination, judgment, responsibility and the creative urge directed into a new channel. There are plenty of opportunities in ceramics to meet these needs. Turning at the jigger, glaze application, weighing of glazes, helping with the kiln, studying uses of pottery in the home, different forms of decorating, and individual design problems, using simple molds, all afford good material for this period of development.

Up to this time the very important field of design which we must not overlook has been approached mostly from the emotional point of view. With the coming of adolescence the judgment begins to develop, furnishing a logical time for approaching design from the intellectual point of view. This will give the child a sense of new adventure and a feeling of stability as he finds himself swinging backward and forward between the emotions of a child and the developing intellect of an adult. Thus, he need not depend upon his emotions, of which he is none too sure. He enjoys a feeling of importance as he looks at various forms he creates and decides whether the general shape is good, the parts well related to the whole and each unit pleasing in itself. He may depend mostly upon his emotional responses, or mostly upon his intellect, or perhaps a satisfactory balance of the two. At any rate he has something to depend upon and his self-respect and knowledge continue to grow.

When we consider that ceramics is the second largest industry in the United States, it is easy for those interested in industrial design to list that as one of the main reasons why more children should have a chance to study art through the manipulation of clay. Gradually the industries throughout the country are realizing, as a few have already done, that they can never succeed to the fullest of their capacity until every factory has access to a good designer. Those designers who have known ceramics over a period of years will make the most creative designers for the ceramic industries, other things being equal.

I believe there is no other subject which offers such great opportunities as ceramics for a socializing influence. Here could be—in fact should be—taught the qualities which are the very fundamentals upon which any great civilization must be built. Among these should be mentioned the fulfilment of the creative urge, an understanding of the various ramifications as encountered in any great field of art, the ability to cooperate for the welfare of the whole, acquaintance with historical and social backgrounds, and power as individuals to carry on successfully in a great sense of the word. The germ of such development is in the children's humble creations. A leader with almost super-human power is needed to lead them to the goal.

DECORATIVE PROCESSES FOR POTTERY

ARTHUR E. BAGGS

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The field of decorative processes is so wide that even to name all of the ingenious ways by which potters have enriched their wares would take too long. I shall discuss only three methods which I have chosen because they are so direct in their application on the unfired clay, because they employ one simple material, "slip," and because they are

so easy to use that they are within the range of school work by beginners.

When primitive people began to decorate pottery, they did chiefly two things; either they scratched or impressed a pattern of lines in the unfired clay or they painted patterns upon the surface of the clay with other natural clays or earthy pigments. These two primitive processes are combined in the three methods which I shall illustrate.

Natural clays are of many colors when fired, ranging all the way from black through browns and reds to cream and white. Clay mixed with water until it is in a fluid consistency like thick cream is called slip, as most of you know.

I have a number of pieces here which some of my students have been making during the past two weeks. We have used a clay which fires red and a slip which fires white. (Exhibiting the pieces.) Given these two materials, what are some of the simple things we can do with them?

First let us consider slip painting: painting in the white slip with a brush or perhaps flowing it from a slip tracer in a continuous ribbon similar to the way in which a pastry cook decorates a cake. One type of slip tracer is like a large medicine dropper, the flow of slip being controlled by a bulb. Over the pattern developed by the white slip on the red background transparent glazes may be applied. The glazes may be clear or colored. Thus a wide variation of color values may be obtained over the same basic red and white combination.

Another interesting use of slips is in the process called "sgraffito." This consists of giving to the piece made of the red body, we will say in this case, a thin coat of the white slip through which a design is then scratched. The piece I have here has been partly worked out. It had the white slip all over it; then the student scratched through the slip with a sharp tool, exposing the red body underneath. The piece has been left unfinished so that you may see the process more clearly. The method is simple, easy, and effective. The final color combination depends, of course, upon the choice of the glaze with which the piece shall be covered.

A third modification of slip decoration is the method which the Japanese call "Mishima." In this process the design is incised in the clay—scratched or impressed; then over the whole piece, or such part of it as bears decoration, the slip of contrasting color is applied. The lower part of this piece shows the way the whole thing looks after the slip has been applied. All the lines and crevices are filled with slip. The next step, as shown on the upper half of the piece, is to carefully scrape the slip from the surface. In the depressed lines of the incised pattern the slip remains as an inlay, either sharp and clean or somewhat indefinite, depending upon how completely the slip coating is removed from the surface of the background.

A convenient tool for scraping off the slip is a thin, flexible steel palette, oval in shape, with one straight side. These may be obtained from dealers in potters' supplies. If somewhat hazy, not too definite effects are preferred, careful sponging with a very fine-grained sponge is effective. This should be done after the piece is dry.

These three methods are the only ones which I shall discuss at this time. I have a few other pieces which I shall show you, illustrating the varied results obtained from putting different glazes over these types. (Exhibiting them.)

This one was a combination of slip painting and sgraffito. The main masses were painted on first as slip and then the fine details in these masses were scratched out with a tool in the sgraffito technique, and this bluish-green glaze was applied over the whole thing.

This next example is a slip-painted piece. All of these little bowls were inspired, in a way, by the old Pennsylvania Dutch pie plates. They are similar in shape, and they employ the same technique. This piece has a white and also a black slip. By the addition to a white slip of small percentages of mineral pigments which stand the fire one may make a reasonable palette of colored slips beyond that which is available from natural clays. That is, you can make blues, greens, and other colors which do not occur as natural clays. I think, though, that for this type of thing it is often better to stick to the natural clay colors.

Here is a piece with more color. First it was only red and white, then after the biscuit fire other color was added in the form of soluble salts. That is, the blue was cobalt sulphate dissolved in water. Just a thin application of this cobalt sulphate solution over the white slip soaks in and virtually inlays the slip with cobalt so that after it is fired the painted part comes out blue. This is a very simple, easy addition to the slip process and can be done either in the biscuit state or before the biscuit firing. It gives a little brighter color if added in the biscuit state, or just before the glaze is applied. Then, the color which is dissolved in water penetrates the glaze better and produces a brighter color.

This is a plate which was done with the addition of soluble salts painted over the white slip after the biscuit firing; copper sulphate for green and uranium nitrate for the yellow.

Question: Is your slip applied when the body is dry?

PROFESSOR BAGGS: This particular slip works well over dry clay because it has very little drying shrinkage. I did not mention the fact that in this method a slip must be used which fits the body. Different clays have varying degrees of fusibility and shrinkage. You cannot take any two clays offhand and work them successfully. This particular white slip which we have been using works well over many other clays. Perhaps some of you would be interested to know that it is 50 per cent flint, 25 per cent ball clay (a very plastic clay which burns to a light

cream color), and 25 per cent feldspar. This slip sticks very well on most clays, whether the piece is fired at a low temperature or as high as cone 9. Many slips have a more limited range. With such a slip as a base you can add the ordinary metallic oxides or prepared color stains and make slips of other colors. With some slips you will find that they stick better if applied to clay in the leather-hard state. Others work better on dry clay.

Question: Is that any particular kind of feldspar?

PROFESSOR BAGGS: The feldspar we used in this slip was Keystone Feldspar. I think you will get reasonable results from any good spar or clay. This happened to be Keystone Spar, and we used Kentucky Ball Clay, Old Mine No. 4, and ground flint. Sometimes just a good English ball clay alone will make a fairly good slip at a high temperature. It is not so good at low temperatures. There is a natural black clay which makes a fairly good slip. It is called Blackbird.

It is well to try out any clays that you may have; they may fit without change. If they do not, you can adjust them more or less by additions of such materials as flint, feldspar, or Cornwall stone and develop a slip which sticks.

CERAMICS IN THE PUBLIC SCHOOLS

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Ceramics as a subject has artistic and educational value, which I shall endeavor to point out in the following brief discussion. I have been asked the meaning of the word "ceramics," and why it should be listed as a subject in our school curriculum. The Art of the Potter is perhaps the oldest of all the arts, and throughout all ages has led to most important creative expression. Most of our museums have excellent collections of historic examples representing vast fortunes in value.

Ceramic art pertains not only to fashioning artistic and practical objects of utility, but includes a wide range of expression from the child's toys to the sculptor's terra cotta interpretation of portrait or figure. I shall take for granted that ceramic art has a reason for being and point out some of the shortcomings in the teaching of ceramics and suggest remedies. We aim to give the child the most cultural and character-building experience possible; to stimulate creative and original expression through many channels; to build up a mass of helpful and enriching information and to prepare him for his place in society. The enjoyment of life is not based upon scientific deductions, but upon Art in life and its surroundings. Science gives us many physical comforts, but even in these the art of the designer must enter.

Clay as an expressive medium has innumerable values. It permits of the greatest possible correlation with other subjects in the curricu-

lum. I cannot conceive of Art being taught in the public school without giving due consideration to the use of clay in the many phases of project development and hand-work activity. The material itself has a characteristic not found in other materials, which permits of a freedom and spontaneity of thought, and the development of a consciousness of the third dimension. No concept expressed on paper in two dimensions can ever carry that visual or tactile value. No medium is as mobile, yet it makes possible the feeling for mass and balance and other fundamentals of good design. No Art program is complete without consideration being given to three-dimensional design in a plastic material. Pittsburgh's Art program gives one-eighth of the total time to working with a plastic material, usually clay.

Our present process of education has done much to improve taste and an appreciation of industrial products. The manufacturer is conscious of the demand for more Art as a better sales element. During the recent meeting of the American Ceramic Society in Pittsburgh, the department stores carried a number of exhibits. The different processes of the potter's craft were shown and the intense interest on the part of the public was proof of its educational value. Our museums could do much toward developing appreciation through demonstrations. Motion pictures showing the actual making of objects in a factory or studio always hold the interest of laymen. Schools should be furnished with examples of wares in various stages of process. Schools offering ceramic courses could contribute a good deal toward creating interest through traveling exhibits planned for specific contact with children in localities where few ceramic products are manufactured. Illustrative exhibitions of scaled models showing the processes and materials of manufacture could be designed to give the child some idea of how objects now in the home are made from raw materials.

Ceramics, if properly taught, should come to a practical end. I do not believe that it is fair to ask a child to express himself in clay only to see the piece crumble and fall to pieces before he gets it half way home; or, see the water seep through, causing complete loss of something he wanted to preserve. I am sure there is a better solution for preserving the efforts of the child and I feel that we owe him something practical. Children can be taught to build with clay so that many of the pieces could be fired successfully. A city or town of fair size should provide facilities for firing some of the works of all grades of students. They need not be carried beyond the first firing in most cases, for they can be practically finished after the hardening process has been accomplished. Some of the finer pieces could be glazed and made technically better. In small communities the procedure suggested by Leon Winslow and described in his book, *Industrial Arts for the Grades*, could be accomplished.

XI. ORGANIZATION PROBLEMS IN INDUSTRIAL ARTS EDUCATION

PROBLEMS OF ORGANIZATION

ALLEN A. NELLIS

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What we teach, why we teach, and how we teach offer many problems of organization. In the consideration of the first of these, What we teach, it is necessary, before organizing any course of study, to set up the goals which we expect our teaching to reach. This brings up the problem of objectives. The general objectives of Industrial Arts are fairly well understood, but because of the diversified types of schools the teacher is confronted with the specific objectives of the school in which he is employed. The problem of the type of teaching we expect to follow will then become an important consideration: do we have need for the unit shop, the general shop, or both?

In this age of highly specialized activities, there is a growing complexity of subject-matter content. It is necessary for us to have a superior program to offer our pupils. To further our own interests we can and must achieve this superior program. It is imperative that we give this problem our careful thought. When thought is concentrated upon a course of study, one needs to bear in mind the problem of equipment. Whereas a few years ago machines were noisy, cumbersome, and in many instances very difficult to use, the present trend is toward machines that are quiet, compact, and so made that their operation is very simple.

Much needs to be done toward the study of the placement of departments in relation to one another. The problem of saving steps has been carefully studied, and the complexity of the physical layout has been recognized. The placement of lights, the proper diffusion of light value at working height, the amount of space required for various units, the necessary width of aisles, the best kind of blackboards, the location or placement of the bulletin board, the construction of the show case, the location of the tool room, and the arrangement for storage and locker space must all be considered. All these and many other minor problems go to make up the complexity of our present physical layout. It is true that many of us cannot change our lighting systems, our locker spaces, or our tool rooms, but it certainly is a challenge that cannot be overlooked. It is true, however, that in many cases slight alterations will effect a much greater efficiency.

It is our problem to organize a course of study to be offered that will prove conclusively that we are not the most expensive department

in the schools of today. This is another of our growing list of problems in organization.

We cannot set up a course of study that does not keep in mind the expended energy of the teacher. Organization must not exceed our capabilities. How, then, can we expand our curriculum and keep it under control? This is being done today with organized pupil personnel. Mr. Bedell is to deal specifically with this type of an organization problem in his address to follow. I do not say that the teacher is to fade from the picture, but I do say he must be the power behind the gun rather than the gun itself.

We have not touched all the organization problems under the first of these three main headings, but we have given at least a partial list. Let us direct our attention now to the second: Why we teach. Selection of courses to be offered is in itself a problem that could be discussed at length. Teachers come into teaching with professional training of a varied nature. This makes it possible for us to select for organizing, content material which will be vital. Teaching in every area of Industrial Arts, be it woodworking, printing, electricity, or drawing, can now take on an aspect of importance that has not been reached before. These courses can be a definite help to mathematics, geography, and other academic studies. We need no longer to be a subject apart, but rather part of an educational system.

Guidance has grown in importance, and no finer place can be found for boys to get their first insight into vocational possibilities than in the Industrial Arts department. In short, the Industrial Arts program must be developed with the pupil in the foreground. Will it be of specific value to him? Will it give him the guidance that is lacking in so many instances today? If we can answer these questions affirmatively, then we have just cause to include these courses in our organization.

Having selected the things to teach and rechecked them by asking why we shall teach them, we must next consider the problem of How we teach them. Because of various modern tendencies in education, it is becoming important that the teacher be a consultant. He must organize his classes so that they will give not only training in skills, but also opportunity for social growth. Classes have increased in size. Whereas we formerly had classes of from twenty to twenty-four, we now may be faced with from thirty-five to fifty eager young pupils on the opening day of school. Teaching groups of this size is no longer thought of as an impossibility. We are faced with it and must devise appropriate methods. Classes of such large numbers make it necessary to have a well organized method of obtaining and filing records. Professor Ashley, in his discussion of Shop Record Forms, deals specifically with this problem.

When these things are settled in our minds, we have to prepare some tangible means of getting our instruction across. Written forms of instruction have advanced rapidly both in use and in merit. With the aid of written instruction sheets, illustrative materials for demonstrations, a personnel organization that functions, and adequate record forms, we find it feasible to handle larger classes than was formerly thought possible.

Using an imaginary organization of a course of study as a medium, we have surveyed some of the problems of organization. The school is ready for the prospective pupil. What else, then, is left for the Industrial Arts teacher to do? When classes end, does he go home for a well-earned rest? Some do. The progressive teacher does not. He meets with his clubs. He discusses problems with the chief draftsman of the drawing room or with other officers in the personnel organization. He arranges for further outside activities. These things are needed in his organization and surely fall under the heading of vital organization problems.

We are confronted with organization problems every minute of the teaching day. It is my contention that that teacher who organizes his work, trying to foresee the major problems, and remembering at all times that no organization is too good for correction, will be the teacher who will advance Industrial Arts most in modern education.

ORGANIZATION AND ADMINISTRATION OF SHOP-RECORD FORMS

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Benjamin Franklin once said, "Keep thy shop and thy shop will keep thee." If there ever was a time when an Industrial Arts Teacher, and likewise any other teacher, could profit by giving some attention to this old adage it is now, when everything but fundamentals are being discarded and when only those things which are doubly essential are retained. One can no longer go through the daily routine of "just meeting classes" and expect that there will always be classes to meet, for security because of previous tenure, has disappeared. Unless one can have such an organization as will bring unquestioned results, with the maximum of economy in time and money, he will see his organization go into the discard.

Manufacturers have been compelled to lower costs incessantly in order to exist in the periods of greatest competition. Expert planning involving the use of new devices and machines, was the saving factor for those who survived. The larger the organization, the more need for

tools and devices to eliminate waste and insure the maximum product both in quality and quantity.

Our schools are like factories in that they are set up to turn out a product for which we have established certain criteria as to quality and quantity. The quality of the product is constantly under surveillance by those who furnish the capital. No part of the school is doing more than that of Industrial Arts Department to meet the criteria of quality, as set forth by the Seven Cardinal Principles of Education. This is shown by a recent study completed by the speaker for the Ohio State University. The purpose of this study was to determine the problems of administration in connection with Industrial Arts Organization using as criteria the devices or tools set up to overcome difficulties. With the assistance of many state directors, and the cooperation of thirty-four directors of outstanding school systems a great amount of material was made available for study. The work of forty-three other directors and teachers who have contributed to literature in the Industrial Arts during the past fourteen years was used. It was found that all of the great variety of record forms now developed and in use have been attempts to keep the organization efficient when it became too large to be cared for adequately by individual or personal methods.

It was further found that all of the efforts in this direction could be classed under four heads, (1) Care of students, (2) Care of supplies, (3) Care of equipment, (4) Care of teaching staff. The following names were given to record cards used in caring for the students: Attendance Records, Attendance Certificates, Progress Charts, Course Analyses, Excuses, Job Analyses, Job Assignments, Labels, Make-up Assignments, Penalty Notices, Permits to Work, Permits to the Corridors, Permits to Operate Machines, Receipts for Fees, Reports of Injuries, Requisitions, Routing Sheets, Rating Sheets, Tardy Reports, Time Cards, and Tests. To care for supplies were found: Inventories, Labels, Material Coupons, Material Returned Reports, Receiving Reports to Purchasing Officer, Requisitions, Sales Records, Accounts Due, and Stock Bills. Equipment was cared for by: Inspection Reports, Inventories, Requisitions, Equipment Assignments, and Tool Reports. For the teaching staff there were: Rating Scales, Class Records, Reports to Parents, and Reports to Superior Officers.

It is not the purpose of this paper to show these developments. They can be found in the library of The Ohio State University under the title, "Administrative Problems in Industrial Arts Organization with Special Reference to Shop Record Forms in the Secondary School." Attention is called to the extensive use made of these devices as tools of administration in order that a better conception of their importance may be had. Teachers will be interested in criteria which will be recommended in the developing of forms for their own organizations.

Most of the forms now in use cover the following activity areas: Auto-Mechanics, Cabinet Making, Drafting, Electrical Construction, Home Mechanics, Machine Shop, Pattern Making, Printing, Sheet Metal Work, Upholstering, and Bench Woodwork. In most cases they have been made to serve the purposes of a single administrator. In many cases they cannot be used without interpretation by him. In a very few cases the very idea of organization is defeated by the careless appearance of the form.

Shop record forms are the tools of administration, and obviously, one should want the most efficient tools available. As the kinds of forms used in any institution may tell much about its administration, pride in one's work should cause us to spend more time in the developing of them.

Here are two forms shown on the screen. What are they for? One can scarcely tell until he has read practically every word. Which one best serves the purpose for which it was intended? If you were to choose one of these cards for your own organization, which one would it be? How do they compare with this third one? What are the advantages of the third card? What are its disadvantages? On the first two cards the name of the institution is omitted. The title or name to designate its use is also omitted. One of them is on thin paper which is not suitable for filing. It is so worded as to defeat its purpose. Instead of asking that consent be given to operate power machines, it tells of the danger in a way that the parent feels as if he is signing away the life of his son.

In the two cards shown next, there are some disadvantages in the wording. One card still leaves the feeling that it is somewhat undesirable to sign. The advantages of the card are that the name of the institution is given, and a title is given to each one. The size and material of the blue cards make them suitable for filing.

William James has said, "Comparison is the basis for Classification." We may then, take other Record Forms made to serve the same purpose, and compare them, selecting the advantages of one form over another until we are able to make a list of criteria for the developing of better forms. These criteria will likely fall under ten major heads with the possibility of a number of sub-heads, as follows:

1. Size for form shall be adequate for the purpose needed, and at the same time, suitable for filing. It may be folded.
2. The form should have a name in conspicuous print at the top which designates its use.
3. The name of the institution and the department represented shall appear in less conspicuous print, either before or after the title.
4. The statistical matter for which the card is used shall be so planned that it will care for the maximum number of situations.

5. If blanks are used on the form, sufficient space should be provided for writing.

6. Sufficient and carefully selected words must be used to make clear the use of the form in order that others may use it without explanation.

7. The very idea of "Organization," suggests that the form must be neat and attractive.

8. Forms for permanent records must be made on durable material.

9. A color scheme should be planned for large organizations, certain colors to be used by designated individuals, or to represent different statistical data.

10. Dr. Toops suggests that if the name of the author of a form appeared on it, there would be fewer poorly made forms.

The "Certificate of Accomplishment" card of the Racine Vocational School and the "Report Card" of the Bayonne Vocational School show good sizes for filing for a single card and a folded card. These two cards rather well fulfill the other requirements set forth above, even to requirement number 10, that they contain the names of the authors.

Referring to the color scheme, the instructor has a designated color for his "Permit to Work" card. This is administered as follows: When a student desires to work at unscheduled hours, his instructor may issue to him a permit slip using a color assigned by the head of the department. This slip is authority for the student to remain in the room. The color shows all other instructors who is responsible for him. This card does not meet with the criteria set up for best forms, because the name of the institution and the department are not given. The other criteria are well cared for. The reason for selecting this particular form for this example is the important place it can play in a shop organization where the work is so fascinating that students want to work all the time. The instructor is not permitted to issue the card unless he knows that he will be in the building during the time he permits the student to work. In this way he does not pass the responsibility to other teachers.

The "Penalty Notice" shows the use of different colors in connection with equipment assignments to designate similar duties with different apparatus. The administration of this form is shown in detail in the Industrial Education Magazine for April, 1933. A card is posted on the bulletin board in the room with the names of the students, their bench and locker numbers and the special duties assigned. Students are notified by the student checkers of failures to care for special machine assignments, by means of a red tag. Bench assignment delinquencies bring a green tag. All equipment in the work room is assigned to students to care for. A perfect score in these assignments adds ten.

points to the student's term grade. The honorary position of checker may be secured by a perfect score with equipment. The checker hands out the tickets to the delinquent ones and records their demerits. His work is very easy after the first week, when each one has become conscious of the importance of a good score. This plan works very well with high school boys, and is commended to the attention of any who are having trouble in keeping equipment in first class condition. As there is no particular reason for filing these cards they are made only large enough to accommodate the printing required.

Another reason for a color scheme may be to represent certain types of supplies. The illustration selected is a sheet from a perpetual inventory pad. In the institution represented, supply pads are printed in colors, a different one for each type of supply. For example, in the lumber supply room is located a bulletin board on which there is fastened a green pad of about 100 sheets for every description of lumber in the stock. There is a pad for one inch Basswood, another for one-half inch Basswood, etc., covering all of the kinds of wood used. In the finishing room is another set of pads, of another color to represent paint supplies. The form is self-explanatory, and takes but a second or two, to keep the balance in sight at all times. It is the simplest type of inventory found. With it one need never dread the annual inventory day, because the inventory is always ready.

A development in connection with the inventory pad was the fact that by changing the wording slightly, it could be used with every type of supply. Instead of printing lumber of a certain kind on the pad as was done with the original, a blank is left on which the kind of supply is written. Instead of having the words "Square Feet Taken," the words "Amount Taken," are substituted. This simplifies the printing of the blanks considerably.

In connection with the sales of supplies to students a "Lumber Ticker" has been developed of different values and represented by different colors. With the increase in the number of media used by Industrial Arts students, it becomes necessary to dispense other supplies. The Oklahoma City Material ticket is properly named, as it is good for any kind of supplies. It does not have to be filed and it is a good pocket size. It might be improved if there were a line for the signature of the instructor issuing it. Without such a line, the card is always good for the amount designated, and must therefore be kept under lock and key. Some students prefer not to carry their cards for fear of loss, and prefer to leave them with their instructors. In this case, if it is made a good size for filing, it would be more convenient. The lumber ticket of The Eastern Illinois State Teachers College is of such a size. A form larger than this would be a waste of paper, and would be inconvenient to use.

The importance of the form and time it is to serve will also sug-

gest the type of material. A daily glue notice or tool report, may be made on a small and inexpensive sheet of paper. This is true of a student daily supply requisition or of an absentee list. Tags or labels should be made only of such size as is necessary.

It has been stated that increased production in industry requires more effective tools. Increased enrollments in schools have necessitated more effective administration to keep from lowering standards. The tools of administration are record forms. These tools pay dividends on the investment in them, when properly designed for the function they help to perform. Forms have been found valuable in almost every activity area in the Industrial Arts Organization. When proper thought has been given to their development, fewer forms are necessary, less paper is used, less explanation is needed and better results are obtained.

THE PUPIL PERSONNEL ORGANIZATION

EARL L. BEDELL

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The general-shop idea has come in response to a demand for socialized courses. It seems to be the consensus of opinion of those leaders who are best acquainted with the problems and objectives of the junior high school that shop courses should be of a general nature. It is quite generally recognized that the outcomes of our instructional efforts are measured to a great extent by the manner in which our pupils fit into their community life. There are many persons who believe that social efficiency may be a greater factor in an individual's success than his technical knowledge or his possession of manipulative skill. Being aware of the importance of the social-efficiency factor should not lead us, however, to neglect the development of skill nor to place less emphasis on the acquiring of technical knowledge in the industrial arts subjects. Rather, let us believe that it is possible to include this desirable training without detriment to the essential instruction in skills and technical knowledge. It is not suggested that training in social efficiency should supplant what have been so long considered the essential elements of shopwork. It is being suggested, however, that desirable traits of behavior may be developed in the pupil through participation in a good shop organization. It would seem that the development of such traits as represented in the following situations should become an integral part of shop instruction: (1) taking orders from a superior, (2) giving orders to helpers, (3) assuming responsibility for getting things done, (4) participation in planning an organization, (5) accepting duties for the good of the school.

These situations cannot be made a concrete, tangible part of the course-of-study content. However, the course of study can be so arranged that the situations which will promote social development

will become an inevitable part of the outcomes of the instruction. In other words, the organization of teaching material, the management of the class, and the type of teacher administration are the things, apart from the subject-matter content, which affect instruction.

Shop management of a high order is necessary to successful teaching in a general shop. By management is meant routine movements about the shop, the order of business, and the organization of the pupils into working groups. The word management when used in this sense must not be confused with educational methods applied to the learning process.

It has been found possible for the shop teacher to relieve himself of many of the jobs which usually devolve upon him. Many of the things which a teacher often does for his pupils might better be done by the pupils themselves. The principal duty of a teacher is to teach. There is an old adage, "You can't do two things at once," and it applies to the teacher who checks out tools, takes attendance, and personally assumes responsibility for the many little details of shop organization. Such a teacher soon finds himself so busy that he has little time to do any teaching.

The principal factors which have given impetus to the development of the pupil personnel for the management of shop classes are: (1) the general shop with its diversified equipment, (2) the increase in the size of shop classes, and (3) a desire to develop social objectives through industrial arts courses. These factors are not named, necessarily, in the order of their influence on present teaching methods. In fact, they are so interrelated that it is unnecessary to treat their influences separately. It is sufficient that we are aware that these factors represent existing conditions in most school shops. For clearness, let us restate the conditions which confront the shop teacher today:

1. The general shop is here, involving the use of a variety of equipment and the carrying on, simultaneously, of several activities in one shop.

2. Shop classes are larger than formerly and there is no immediate prospect of the size of classes being reduced.

3. The moral traits, habits of work, and the social attitudes in boys are considered very important qualities by employers of boys, therefore shop teachers have found it necessary to provide instruction to meet social objectives as well as attainments in skill.

An organization to handle the management of a class must be developed with the pupils. It must become an institution in the school. It is not a thing which can be arbitrarily super-imposed upon a group of pupils "without the consent of the governed." It is practice in self-government. Teachers attempting to introduce a pupil-personnel organization are strongly advised to delegate duties and responsibilities to their pupils slowly. The first step might be the appointment of a

Class Secretary and a Safety Engineer. Then a Stockroom man would be found useful. Shop management by a pupil personnel is democracy in practice and its successful operation depends upon the cooperation of the pupils. No duty or office should be created that does not benefit the pupils in their shopwork. The ultimate attainment is a pupil-directed class in which the teacher is conspicuous by his inconspicuousness.

One of the first things to combat in the minds of pupils is the idea that organization assignments are extra duties. The idea that duties and responsibilities are an integral part of the course must be carefully developed. Much honor and prestige should be attached to outstanding contributions by pupils in the field of organization. But it seems necessary to warn teachers that as much stress should be placed on good "followership" as upon good "leadership." Teachers will soon observe that the type of boy who responds well to added responsibilities will be able to handle his subject-matter assignment in addition to the organization assignment. In fact, it has been observed that more work is completed in shops run with a pupil personnel than in shops run in the traditional way with the teacher dominating everything.

This is just a passing observation. Have you ever stepped into a school shop to discuss briefly some problem with the teacher? The teacher is trying to give you his attention, but he is constantly interrupted by the pupils asking questions on how to proceed; or possibly, you may not be interrupted at all, but if you observe the students in the shop you may find that gradually more and more students become idle. If you investigated, you would probably find that the teacher had issued an order that he was not to be interrupted when he was talking with a visitor. No provision, however, had been made to delegate any of the duties which the teacher was temporarily unable to perform. This illustrates only one of the situations which may arise in a shop which has no pupil-personnel organization.

In attempting to put a pupil-personnel organization in operation the usual procedure is to make a chart which can be hung on the wall where all members of the class are free to inspect it. The offices are named, and the duties pertaining to each are briefly but clearly stated. A few of the offices require the full-time services of the pupil during his term of service. The other offices require, simply, that the pupil assume his responsibilities along with the regular work of the class. The term of office is usually about four or five class sessions. At the beginning of the term appointments are made by the teacher, but succeeding selections are made by class election or by a merit system. The latter method is found more satisfactory.

Shop instruction is difficult to evaluate. In the first place it is dependent upon a number of inter-related functions. It is the purpose of this outline to indicate the relation and nature of a few of these

functions which are considered essential to good shop instruction and which may be readily observed by the administrator. Shop instruction is reflected through (1) the children, (2) the teacher, and (3) the equipment. However for the purpose of this discussion attention will be focused on the functions which serve in producing a high type of shop instruction rather than on the pupil or the teacher.

The function of *teaching* will be considered limited to the teacher's activity in showing pupils how (1) to use tools and materials, (2) to follow directions and plans, (3) to make plans. Extended lectures or recitations have been found to defeat the purpose of shop work. The most effective teaching is done by the teacher who is able to set up a situation in which the pupils learn by doing. This implies that pupils should spend the major portion of the class period at their benches. An important phase of a teacher's work is recognized in the stimulation of constructive work, promotion of the habit of industry, and orderly procedure (attacking a job) and the appreciation of high standards of workmanship. Although these patterns of conduct should be considered very important, no teacher should attempt to teach these by direct attack. The degree to which desirable patterns of conduct are developed can be judged only in the general reactions of the pupils.

Shop management by a pupil personnel is generally accepted by teachers as necessary and desirable. From the point of view of the teacher it should relieve him of many troublesome details such as handling out tools, calling the roll, picking up and cleaning up as well as preliminary checking of the pupil's work. The pupils should profit by shop organization because it provides participation in self-government. The lack of a pupil personnel organization including a system of class officers is made evident when several pupils must wait in idleness for the teacher to assign a new job or to check a completed job, or in a shop where tools and materials are strewn about in disorder. The teacher serves the class best when he is able to free himself from any routine work that can be done by pupils. It is then possible for the teacher to devote himself to the more important job of conferring with pupils in regard to their work and assisting those in difficulty thus preventing waste of time or materials by any pupil.

If a school shop is to give maximum service to the pupils it must be clean and orderly. The term "housekeeping" is used to include the entire function of keeping the shop clean and in good order. What might be considered good teaching is often discredited when done in disorderly surroundings. Ordinary safety cannot be practiced in a shop with oily floors, or floors upon which are strewn pieces of wood or other materials. Dust-laden window sills, dirty corners and drawers filled with rubbish violate the principles of fire prevention. Orderly procedures in doing a job can be developed in pupils more effectively in a shop that is orderly and clean. Also, good housekeeping is neces-

sary to create and develop the proper respect for the equipment. Therefore it is reasonable to assume that pupils should be taught the principles of good housekeeping. It would seem desirable to have pupils assigned definite duties pertaining to the function of housekeeping. The feeling that these duties are an integral and essential part of the shop course should be developed.

Good housekeeping will be attained through alertness on the part of the teachers and pupils and with the assistance of the janitors. The teacher and pupils must assume the responsibility of keeping floors clear, tools hung up and equipment arranged so that it is possible for the janitor to do his work. The janitors should be responsible for the shops being swept daily, and in the case of wood shops it is sometimes necessary to sweep oftener. Dust should not be allowed to collect in any part of the room. The floors should be mopped frequently to remove the film of oils and greases which collect. The plumbing fixtures should be kept clean. On the other hand janitors cannot be expected to do their part unless there is cooperation.

XII. SECONDARY SCHOOL ART

ADAPTING ART TEACHING TO A NEW AGE

BESS ELEANOR FOSTER

Art Supervisor, Minneapolis Public Schools

Most of us are finding that adapting ourselves to a new age is the most stupendous job which we have ever encountered. At best, adapting is a hard job. It means not only that we must think different and more thoughts, but that we must think them quicker and change oftener.

Someone has said, "Our fossil beds are filled with the remains of animals that couldn't change habits quickly enough to survive in a new world; and our history is filled with the records of men who were blotted out because they couldn't or wouldn't step lively when the big parade quickened up."

If the art supervisor and art teacher is to hold his or her place in the new world he or she must be alive to the tremendous changes which the machine age has wrought in the human program and be quick to sense the needs which accompany these changes. We who are in art education positions must alter our ideas not only every year, but sometimes every month.

While I recommended expansion, the seeking for new techniques, for new modes of expression from which the upward trend will come, at the same time I recognize that innovations which amount to anything have come and will continue to come from our study of that which has passed the various steps which have brought us to the present.

Neither you nor I wish to return to the "good old days." Rather we have adapted ourselves to living in a different amount of space, having a different range of interests, and now along with all educators, we adapt ourselves to salary cuts that set us back to where we were ten or more years ago. While this means adapting ourselves to different living standards, I trust it will not affect our ideals.

I wish to warn against certain aggressive forces which insist that we must admire and accept all that is new and untried. These revolvers keep themselves especially busy studying forms of self-expression. They must be different.

Do not for one moment get the idea that I do not believe that we should provide an art course which permits consideration of the needs, interests, and abilities of the individual child. We should keep in mind that our subject is a part of a curriculum which must blend the cultural, the social, the ethical, and the utilitarian. The happy part of the present situation is the fact that general educators are recognizing that while mastery of the tools of learning is essential to social living, there are other learnings commonly referred to as the "special subjects" which are of equal importance.

The recent convention of the Department of Superintendence of the N. E. A. which was held in Minneapolis was one of the greatest assemblies ever convened on this continent. It discussed with great power and outstanding courage problems vital to the welfare of the children of this generation. The keynote of this convention was the new frontier of American life, and in its opening general session those in attendance were asked to face the challenge of the new frontier. A frontier was defined as "a borderline between the known and the unknown, the new and the old, the established and the experimental."

In the Minneapolis Tribune of Sunday, February 26, the U. S. Commissioner of Education, was quoted as saying that social changes give the schools heavier tasks. He envisions 100 per cent of our young people completing high school work and went on to state that as a consequence school procedure is going to undergo sweeping changes. Many activities now considered purely extra-curricular, will become more important parts of the school system and will lead to high school credits, just as academic subjects, such as English and mathematics, do at present.

The commission stated that in recent years high school attendance has grown rapidly until now 53 per cent of those eligible are in high school. This compares with 14 per cent in England, and even smaller per cents in other countries. In about thirty years we have made tremendous changes in labor conditions, he said, and went on to say that we have facts indicating that the next fifteen or twenty years will see even greater changes. That means that in fifty years there will have

been changes in American social conditions that have not been equaled in five hundred years.

In time Art, music, athletics, and all sorts of extra-curricular affairs will be taught for credit. The influx of students who under conditions of fifty years or more ago would have gone to work at an early age makes it essential to care for them, the commission said. As a result of the lack of school facilities and opposition, he called attention to the thousands of jobless youths now roaming the country. Instead of retrenchment, he said, the schools will have to keep on developing.

I wish I might spend my entire time this afternoon quoting from the stirring addresses which were given at the Minneapolis meeting. Again and again speakers pointed out that education must be fitted to the times, that while a mastery of the tools of learning is essential to social living, it is nevertheless true that tool subjects by no means comprise all the fundamentals of education. In addition we must provide for such basic elements as will satisfy the cultural, ethical, and thought-getting needs of the individual. This, of course, implies that we will educate individuals who are not only equipped with a practical knowledge which will enable them to make their way, but who have within themselves satisfying interests and who are capable of adjustment.

Declaring that man's creative abilities are being defeated by the machine a representative of the NATIONAL RECREATION ASSOCIATION of New York, said,

No longer does the worker find satisfaction and fulfillment on the job. He must find opportunity for his creative talents outside of his work, in his hours of leisure. With the coming of the thirty-hour week, education for the fifty hours of free time will become more important than for the thirty hours of work. Tomorrow, it may be just as necessary to have a hobby as it is today to have a job.

The avenue of information which should be used to advantage at the present time lie in the radio, in articles written for newspapers, and in an intelligent and convincing presentation of the value of art education by art teachers.

Just recently I had the opportunity of giving a radio talk which was sponsored by the Radio Council in Education. I endeavored to make the most of this chance to tell the public that art teaching is not a fad, but an economic reward to the community. Disapproval of the term "fads and frills," has been voiced by the Pennsylvania State Education Association, in the following language (and this I gave to my radio audience):

There is no justification for the traditional reverence given to the so-called three R's as being more fundamental or more essential for intelligent participation in our modern social and economic life than such subjects as are included in the curricular and extra-curricular activities which are designated to train our children for leadership, appreciation, self-reliance, and worthy civic membership.

Money spent for music, art, athletics, health education, libraries, etc., will probably do more to prepare our boys and girls to meet the needs of actual living conditions of tomorrow than that spent for any other purposes.

The foregoing statement was obtained from the President of the Federated Council on Art Education. He also sent me a copy of a letter which he had received from the U. S. Commissioner of Education, which I used to advantage in this same talk. Do not hesitate to ask the Federated Council for material of this type and do not be at all meek about seeking ways and means of reaching the public with messages which will make your influence felt. I suggest that when you get home you borrow your superintendent's copy of The Department of Superintendence Report and read the Report of the Joint Commission on the Emergency in Education. Developing the theme of the principles that are to guide the teaching profession in dealing with the problems of education during these times, the report states that . . .

In such times it is the duty of teachers and all public servants to reduce public expenditures to the lowest possible cost consistent with the maintenance of essential services. We would prefer to make personal sacrifices rather than to have children denied their educational birthright. The teachers of the national stand ready as loyal citizens to make every personal sacrifice necessary to protect children from the effects of the depression. But they cannot join in the defeatist attitude which accepts the current conditions as either necessary or permanent.

Now what can we do to lower expenditures and carry on our departments? At times the necessity for meeting an emergency is the means of working out some procedures and plans which have real value for any time. For example, last fall after securing from the School Plan Administration Offices an inventory of supplies on hand and a statement of the amount of every kind of supplies used from January to January of the preceding year, I set about to see what could be planned in order to use any slow-moving stock. Our junior high school course gives a number of choices of craft problems for November and December. Early in October each teacher was asked to report the problem chosen by each class and give the number enrolled. Charts were made against which requisitions were checked. The storekeeper and I knew from these charts approximately how much and what materials were needed.

Last summer I spent three days with some friends who had a cottage on Lake Minnetonka. The young husband is connected with the telephone company. I found that he had a hobby. Down in the basement is a work bench, tool cabinets, etc. Practically all of his leisure time is spent at that work bench. Because I believe that an art teacher or supervisor always should be on the lookout for ideas adaptable to school problems, I was rewarded with a good one on this particular visit. My host produced a puzzle made from a peach crate and some odds and ends of boards. The puzzle was intriguing. My thought was, "Well, if he enjoys making this kind of thing why wouldn't it appeal to junior high boys, and why wouldn't such problems be the means of

bringing joy into many homes where cheer is lacking?" So I borrowed the puzzle and got the cooperation of the Woodworking Department in the Boys' Vocational School where the puzzles were all turned out at a cost of less than three cents each. Two other kinds were added to give variety to the problem. Each junior high art teacher was allowed to select one seventh grade and one eighth grade class for experimentation. The students in these classes designed and painted and shellaced the puzzles. The nearly three thousand puzzles which went into Minneapolis homes have resulted in the ever recurring query, "Are we going to make puzzles next year?" Examples of this problem may be seen in our case exhibit.

Last week the theme in our city was "Better Homes." In its larger application, the movement is based on the deep-rooted bulwark of American life and civilization—the home. Of course, the Art Department cooperated to make the week a success. Fortunately, when those in charge of the Better Homes movement got around to ask for cooperation from the Art Department, a unit centering about the home was well launched in the junior high schools. A number of problems had been planned and choices made, and the same procedure followed last fall had let us know definitely the materials needed by each teacher. As you all know, this year the idea in the Better Homes Week is not to urge home construction, but to interest the citizenry in improving their homes and grounds. There is no word in our language that is nearer to our hearts than is the word "Home." The depression may have a tendency to return the people to a saner way of living of which the home is the foundation. Posters were made in the senior high schools. Pupils were told that they were not doing this to help any merchant who might display them in his windows, or because the local committee requested them, or to get a good grade, but because they were doing their bit as a part of a national movement to relieve the unemployment situation. They were also told that there is scarcely a home or grounds that is not in need of some measure of repair, or capable of some measure of improvement. Whether the job be little or big, there are thousands of self-respecting men (building mechanics and others) who would be overjoyed to get it. To make a home more attractive makes happier and better citizens.

Another method of effecting savings in supplies and improving art teaching is in the form of a bulletin which gives a dozen observations in art classrooms. For example, I will quote from one issued April 25. *Small Posters versus Large Ones.*

For the most part, large posters hung in corridors give an untidy, cluttered appearance to the halls. One teacher has worked out a plan to have posters placed in the English rooms where every student can be reached with the message carried by the poster. Then, too, small posters are being made to place in a door panel of each classroom. A

poster is a poster whether it is big or little. This scheme is worth considering not only because it is a good idea, but because it cuts down on the required poster board and the use of a large amount of paint. I noticed some lettered posters made to advertise the school annual. The lettered design had been cut from linoleum and printed on the paper by running through a wringer. I also noticed some small posters for door panels. These posters were rendered transparent by painting over them with linseed oil.

Chalk Box Chests.

In one school the teacher and pupils in a certain class have been collecting empty wooden chalk boxes. Not being able to get enough to supply one class, the teacher ordered from a crayon manufacturer a dozen empty boxes. These boxes were decorated with wax crayons (the top or a side is shellaced as soon as it is finished). The boxes are then glued and tacked together in arrangements of two or three making a very attractive "chest" of small drawers. Or, a single box may be used as a receptacle for holding small articles. Sawed-off clothes pins make the feet.

"Moral": Interest the janitors and other teachers in cooperating to the end that no empty chalk boxes go to waste.

Science Box.

When the Art Department has anything of especial interest the department chairman of a certain high school asks for the use of the Science Box for a week. On my latest visit to the school, I saw in her room some excellent sculptured heads. The clay had been rubbed while wet, which gave the models a glaze. In the main corridor I saw some of these models arranged in the Science Box. A post-graduate student had been assigned to look after the arrangement of the box. He changed it each day. The problem was handled somewhat as a display window would be. There is always an interested group around the Science Box. By way of enlightening the observers, the young man in charge displayed a card which gave this information: "This work is not intended as an imitation of nature, but rather the artist's emotional reaction to nature. It is an example of abstract design stressing beautiful relationship of spaces, and rhythmic flow of lines."

While these may be times that try the soul yet never has the old saying, "Necessity is the mother of invention," been better illustrated.

In conclusion let me say that we must not lose heart. Rather we must cultivate a cheery, hearty optimism that basks on the sunny side of life. I believe that a new era in art education is not so far in the future, and the hard time that art education is now passing through will be passed. Let us make the most of every opportunity to carry art education into new and more useful fields and make it a very permanent and prominent part of the school curriculum.

ART APPRECIATION—A CULTURAL AND ECONOMIC NECESSITY

ALFRED HOWELL

Directing Supervisor of Art, Cleveland Schools

We are all more or less concerned at this time with the tremendous importance of art and its significance in education. Most of us are on the defensive against the attacks of those who would place the arts in the category of the "Fads and Frills." Actually, I believe we should be on the offensive. I do not think there should be the slightest suggestion of apology for the existence of art in our present scheme of education.

We are not only moving into a new era of aesthetic education; we are actually being propelled into it, and we are naturally concerned with those things that affect the aesthetic, spiritual and economic well-being of the individual. The new social economic era we are now entering upon demands a revaluation of time and its use. I remember that a few years ago George Bernard Shaw made what appeared to be a startling statement when he said, "The day should be so divided that there would be eight hours for sleep, eight hours for recreation, four hours for eating, and four hours for work." The world at that time naturally thought that such a statement was rather unbalanced and could only emanate from the eccentricity of a George Bernard Shaw. Recently I heard a distinguished educator state that we are coming into a period where the working day will not exceed four hours.

It would appear that we are all of one mind in regard to the new emphasis now being placed upon "Education for Leisure." One of our greatest responsibilities in education lies in the exposing of the student to a balanced range of activity combined with the contemplation and visual enjoyment of beautiful things as a means of disposing of the inevitable free time he will have at his disposal. Indeed we are as much concerned with the deferred as the immediate needs of the student. Hence, the matter of leisure time preparation is of a vitally serious character. Should we fail to stress leisure time objectives we are casting a blight upon the future life of the student. We are not concerned with merely laying the foundation for the traditionally educated man, but with those things that add aesthetic enjoyment, spiritual enrichment and emotional satisfaction.

The business of art is, I think, to find wells for the refreshment of our vitality; to evoke in the individual, aesthetic responses. These things will no doubt go far in affording an outlet for the competitive instinct so natural in man. How much encouragement we should have lies in the fact that so many business men are now turning their attention towards the organizing of amateur art clubs.

We cannot close our eyes to the fact that many advanced educators are today giving a place to art never before realized. Some of you will

remember a few months ago at a convention held in New York State, that a number of prominent educators attempted to evaluate the relative importance of various subjects in the curriculum related to the spiritual and aesthetic life of the individual. English was placed at the top of the list, and art second. We only have to go back a few decades to realize how unimportant art education was in order to conceive of its present important position. While it is true that many Boards of Education are seeking to eliminate art and music under the economic stress of the present time, it is also true that many far-seeing educators look upon the fine and applied arts as being amongst the most potent forces in modern civilization. Any occupation with the arts starts an endless train of inexhaustible interests, appropriate and engrossing for all ages and providing intellectual and emotional satisfaction just as long as there is life. If the Commission on Re-Education states that "Education should equip the individual to secure from his education leisure, recreation for body, mind and spirit," then it requires no stretch of the imagination to see the important role that art in the future will play.

Undoubtedly our twentieth century civilization has led us into an intensive concentration on money-making, leading ultimately to forgetfulness of the right use of leisure. Unless people have fertility of mind, the disposal of their leisure becomes a trying and exacting task. Leisure is not an escape from work to be endured for cash reward; it should not be the reality of unreality, but something providing permanent value. I think that the cultural, and indeed the economic value of appreciation is today a great challenge to all of us. Perhaps we have placed the wrong emphasis upon the word appreciation through limiting the extent of art as a factor in every-day living and experience. The exclusiveness of art has so frequently resulted in the traditional Phillistine saying, "I know nothing about art, but I know what I like." The coiner of that phrase has, for many years, stood between the public and the real enjoyment of art.

It is the purpose of educators to clear away the obstruction standing in the way of the public and art enjoyment. Mere passive and affective appreciation is to be deplored. Real appreciation grows out of an intelligent understanding of the fundamental elements and principles constituting a work of art. One of our chief troubles has been in dividing the arts into different categories. We have spoken of fine arts, industrial arts, commercial arts, applied arts, the art of Mr. Smith, etc. Happily there is a tendency to break down the wall of partition that has so frequently separated the arts and we are coming to realize that there is but one art, and that is "good art." We are democratizing art to the extent that it belongs to rich and poor alike, for we cannot admire in our opulence what we have failed to admire in our poverty. If we have enthroned art, exalted it, and set it apart, in other words

set up a kind of aristocracy of appreciation, we are now coming to a fuller recognition of art value as a definite unit in the pattern of life. If we fail to inculcate in our lives something of the principles of beauty we are in danger of wandering off into the spatial limbo of the ineffectual. This demands the presentation of the subject in a language that can be understood, but it does not imply a lack of appreciation of the work of many of our modern aestheticians. We are, nevertheless, conscious of a marked tendency to the overloading of aesthetics, sometimes oversplashed with color and dazzling with paradox. Only too frequently the intellectual side of the problem is carried to the extreme, becomes heavy and crushes the emotional and pure enjoyment of a work of art. The true test of an art educator is one who can keep an adequate balance between the intellectual and emotional side of appreciation. We need the logical system of reasoning about a thing but an over-emphasis of the analytical approach to a work of art, may, at some level, rob the individual of a rich aesthetic experience.

Now there are two kinds of appreciation, I suppose, fundamentally in our minds. There is the appreciation through visual enjoyment, "seeing," and the appreciation that comes through activity, "doing." Both have their place, although where possible, both methods should be combined to complete a more vital experience.

Whether we view appreciation from the point of view of pure "visual enjoyment," or as being "motor constructive," we shall probably recognize the many avenues of opportunity opened up for investigation. We are indeed impressed by the fact that civilization is reflected in its most vital art expressions; it weaves itself into a significant pattern. The historian may be silent, but art remains to tell us of the failures and triumphs, struggles and aspirations of civilizations.

As we study the great periods of art, I am sure we are conscious of great underlying forces. There is the undertone of the race, speaking in a sonorous voice. As we look over the vast landscape of history, we recognize the many dominant factors present. There is the mystery of Egypt; the beauty of Greece; the power and authority of Rome, the spiritual exaltation of the Middle Ages; the sweep of humanism of the Renaissance; the flippancy and superficiality of the Mid-Victorian period. Perhaps we are too near to our own period to properly evaluate it. Undoubtedly there is a new emphasis being placed upon art in its many phases; there is undoubtedly an awakening to new possibilities and new modes of expression.

The appreciation of art might well be called the gateway to a higher life, for it renders understandable those beauties which spring from the noblest conceptions of man. The horizon of the individual is enlarged and his life in general enriched. Appreciation furnishes a

key to a universal language which knows no boundaries of race or time.

Today we find ourselves in the midst of an art movement more active and more significant than at any previous time in this country. Out of manifold experiments there emerges a new spirit; a new conception of art as a factor in life. We are not only learning a new art language, but we are discovering the vast potentialities of the individual as a creative being. We are discovering that imagination is of greater importance than knowledge, for imagination is infinite. It is only through the play of the imagination that man discovers what the world might be. Without imagination the world appears colorless, mechanical and trivial. It is, therefore, one of the highest functions of education to develop the imagination for thinking and doing. If the creative faculty is not developed, it becomes stunted, and while it may not die, it may become diseased.

Our appreciation should go deeper than the mere surface examination or even purely aesthetic analysis. Our appreciations may be enriched through taking into consideration the great underlying forces contributing to a work of art, such as the epoch, the race of the artist. The floodgates of history are opened up and we see how the time spirit and the art spirit are inter-related. How true this is of this day and age can be demonstrated in the field of the industrial arts. We are recognizing more every day the fact that the romantic antiquary is giving way to the scientific functionalist. We are sometimes stunned through the emphasis on functionalism in modern industrial art and while it may often lack warmth, it is a movement that alone can purify the evils and diseases that existed in many of the Baroque examples of the past, when the emphasis was more upon superficial attractiveness rather than upon beauty and utility. The introduction of functionalism has at once heightened the efficiency and aesthetic value of many industrial products.

It is for this reason that the education of the consumer is of paramount importance, and such education will determine to a large extent the products of industry. Industrialists themselves, unlike those of a few decades ago, are becoming more and more conscious of the necessity for training public tastes by placing before the people products that combine beauty and function. There is undoubtedly an aroused consciousness of an obligation to the public that has come into industry, and while mass production is here, it does not necessarily imply a levelling of public taste, but rather a wider variety of choice.

Perhaps one of the most neglected branches of art appreciation has been "Art in Civic Life." I do not know of anything in the field of art that should command our attention at this time more than the development of the modern community. If beauty means the "smile of health," then a beautiful community must have a healthy body.

Think of some of the old cities of Europe that are just rotting at their very core, spreading and disseminating disease. Are we not conscious of the same things existing in our own midst? At the present much time and money are being spent for the development of modern communities, but we so frequently fail to use the surgical knife in cutting away the cancerous growth—growths which have increased tremendously with large industrial developments. There is nothing in a city more expensive than a poor architectural idea as witnessed by the many buildings now being torn down.

C. Hanford Henderson has said: "True art is the overflow of a radiant spirit, and the growth of art in any community depends not only on the number of workers, but also on the number of appreciative onlookers, creators of an atmosphere favorable to the art spirit." Civic pride and consciousness must necessarily be bound up in appreciation and encouragement of civic projects which will reflect the highest type of expression. A community lacking the artistic sense will inevitably be cut off from a valuable source of constructive imagination. This results in loss of caste and lowering of standards of living. A nation of communities filled with beautiful, healthful homes, lived in by people who enjoy and understand beauty in all forms and reject ugliness of any kind, who think for themselves and can give expression to their thoughts and ideas, would be—Utopia. Such an ideal may be impossible of attainment, but we may move a little further along the road in lifting the emotions of men and women to a higher plane through replacing ugliness with beauty. It will mean that the individual, the school, the community, and indeed the nation will find in art appreciation an interpretive force that will aid greatly in raising standards of taste and judgment, and in solving many of the problems of life.

Real appreciation will mean the alliance of a pure sensitivity with a generating intelligence; a perfect balance of the emotional and the intellectual through contemplation and active participation. This will constitute the true basis of appreciation. Our appreciation may not always be expressed in words for the degree of sensitivity may come to light through the manipulation of materials. I have in mind for instance, a boy who apparently had been the despair of his teachers, particularly in regard to his academic subjects. But he was fond of one thing—"soap." I walked into his room one day and discovered a beautifully carved equestrian group. This example of soap sculpture was the kind of release the boy needed. He began, under wise encouragement, to take a more general interest in things. Once morbidly inclined, he now has a happier outlook upon life. Perhaps soap was the only thing that could save him. He undoubtedly has an appreciation of beauty of line and form and is peculiarly sensitive to emotional expression. Art appreciation may easily be the gateway through which one

might enter into the realm of other subjects. How frequently, for instance, have students taken an utter dislike to history, until enlightened in an understanding of the great factors of history through the medium of art.

Indeed art and history are one with each other. The rhythm of life is the rhythm of art. Life borne on the tide of intelligence must of necessity produce the greatest art—the art of beautiful living. We cannot fail to see the advantages of a well presented art appreciation lesson as we watch the eager enthusiasm and emotional response of the pupil. Sometimes they surprise us with their depth of expression. I recall how, upon one occasion, I exposed a group of elementary children to some of the beautiful cathedrals of Europe. The effect was instantaneous. Later on I was invited to visit the same school for they were going to dedicate the cathedral. The pupils had constructed a model of Notre Dame, Paris. They gathered around it and with all solemnity dedicated the shrine. They wrote all their experiences in a beautiful book. They attempted to show, through demonstration, how beautiful architecture and beautiful music have much in common; that the inward, upward movement in the cathedral was like a great Bach chorale. We do not look at one of those great Promethian bound figures by Michelangelo, enslaved, and yet with dynamic power, without feeling that there is reflected the titanic genius of the artist. Neither do we listen to one of the great adagios by Beethoven with its tremendous climax without feeling that there is kinship between the arts of sculpture and music and also between the artists themselves. It is the broad appreciation of all the arts, resulting in a rich aesthetic experience that should be our objective. It is the recognition of the broader aspect of art and the fact that it is one of the great motivating forces in life, and indeed one of the most potent forces in civilization that should encourage us to emulate art appreciation as one of the most vital subjects in modern education. We may yet speak of it as “The new fundamental of education.”

PUBLICIZING THE ART PROGRAM

C. VALENTINE KIRBY

State Director of Art Education for Pennsylvania

Public instruction has always had to meet a challenge and to assume a more or less defensive position. In all school organizations, Art Education has occupied and held a particularly difficult position. Under the better conditions that preceded this present depression, the saturation of Art Education probably was not over fifty per cent. Now, with many school districts, school patrons, and school children in desperate straits, the old cry is raised that Art Education is an unnecessary luxury. The man on the street as well as many in authority has

either a complete misunderstanding of art or at least a vague idea of its aims and purposes. Let me illustrate: Last fall I visited what was probably a typical county fair. I was impressed by an exhibit of contrasting styles in living rooms, arranged by the County Supervisor of Home Economics. It was a demonstration of what you and I agree is art applied to an important life situation.

Proceeding further, I encountered a rather cheap midway with all sorts of amusements. Particularly conspicuous were the large and quite realistic colored advertisements calling attention to "art models from Paris." I came away feeling that the idea of art and art education in the minds of many people was associated with art models from Paris rather than with a vision of art in home and community life.

ORGANIZING A PUBLICITY PROGRAM. In discussing the subject of "Publicizing the Art Program," I wish to consider not alone publicity and salesmanship but the organization of all forces that might stabilize and enrich the art program and to present convincing evidence that art education is not a doubtful expenditure but, instead, a profitable investment yielding dividends of a high order.

Despite the fact that we are subject to external controlling factors, the art teacher occupies a most significant position in selling art education, stabilizing it, and creating a general attitude of good will toward it. We must meet new conditions and new responsibilities with adequate preparation, with a professional and cooperative spirit and a realization of the real need of art as a constructive force in our lives today. Regardless of our own personal views of art, we must conduct a program efficiently, economically, and in a manner that will win respect and adequate support.

I learned from a superintendent recently that in interviewing several applicants for the position of art supervisor in his schools, he assumed an attitude of ignorance and questioned whether it were just to the community to employ an art teacher or supervisor under present conditions. Then he said, "I now want to introduce you to the one applicant who was able to sell her subject to me and convince me that I was justified in continuing the art program in my schools."

We have been rather poor sales people and publicists. We have not exhibited our work as we should. The sound of music is heard in the assembly and through the school building, but the art work is too seldom seen. An important superintendent seemed to realize one of our shortcomings when he said, "You should assert yourselves; you are altogether too modest, too content to take a back seat, too humble, and yet you open the eyes of pupils to beauty; you kindle the imagination; you feed the soul."

EXHIBITS. Every possible means of art display should be studied as never before. Exhibits in various parts of the school, the library, the shop window will carry art to the people and work for an attitude of

good will toward the art program. There should be an exchange of exhibits, and arrangements for showing traveling exhibits of note. The art teacher must assume the responsibility for thus enriching the school and community life.

OPPORTUNITIES OFFERED BY THE SCHOOL ASSEMBLY. Something in the way of art programs should be presented in the school assembly at regular intervals. A year's program might include the following: Posed or dramatized pictures, stereopticon slides, motion pictures such as "The Etcher's Art," "From Clay to Bronze," short addresses by local architects, designers, rug and furniture dealers and a number of others; cartoons and chalk talks by pupils; dramatic sketches illustrating art in dress and home-making. School and class plays in scenery and setting should properly constitute projects in applied art.

COOPERATING ORGANIZATIONS. From the last report of the general Federation of Women's Clubs, I gather encouraging evidences of appreciation and support. Chairmen are urged to see that art appreciation is included in the schools in their vicinity; that good pictures and pieces of sculpture are presented to schools; that interest is stimulated in the gifted pupil; that the love of beautiful things be instilled; and that adequate art instruction in our schools be demanded. Parent-Teacher Associations, Rotary, and other Service Clubs should be addressed and the art work of young people displayed. There is no television for us, but nevertheless, art teachers are giving very effective radio talks. Sympathetic support may be secured through the organization of such groups as "Friends of Art" or the School Art League. The local press may be our best publicity agency, but is frequently overlooked in the service it is usually glad to render. Some papers not only publish the work of pupils, but also reproduce outstanding works of art.

PUBLICIZING THE OPINIONS OF PROMINENT EDUCATORS. Particularly encouraging has been the unqualified support of the art education program by outstanding educators. They have grasped its true significance and have appraised it not as a step-child in the educational family but as a vital contributor to the needs of the hour. Discussing so-called "frills" in education, Dr. Sutton, Superintendent of Schools in Atlanta, Georgia, and former President of the NATIONAL EDUCATION ASSOCIATION, said:

Almost everything in education once was called a frill. Teachers once were forbidden to teach geography on the ground that it was a frill. Reasoning itself once was regarded as a frill. Vocational training once was considered frivolous and unnecessary and for all I know may still be so considered in some dark spots.

The caveman has no frills. His cultural level is a rock bottom. So is his value from a business standpoint.

Raise his cultural level to a third grade basis and he wants a house and the things that go with it. He feels desires that create business.

Raise him to the eighth grade level and he wants all the luxuries of life. He feels the birth of more desires that mean business for the world.

Every time you lift his cultural level, you create more business.

Another educator of prominence said recently that the real frills of education were not art and music but inefficient teaching, outworn traditions, and antiquated methods.

VOCATIONAL OPPORTUNITIES. It is generally believed that most of the subjects pursued in the high school lead through broad, straight paths to a profitable goal, whereas the idea still prevails that the boy or girl specially interested in art will have to live in an attic and probably starve to death. For the sake of better publicity and understanding, the art teacher should be informed in regard to the opportunities in the various fields of the arts. Such information should include not alone the architect, painter and sculptor, but the costume illustrator and designer, the interior decorator, stage designer and craftsman, commercial artist, the styler, the industrial designer, and the art consultant.

Great publicity was given recently to the art work in a high school on account of the exhibition of work of some recent graduates. There was shown the work of an illustrator for a well known fashion magazine; a designer for a large dress establishment; a designer for a large manufacturer of silverware; a designer of automobiles; and an artist with an archeological expedition.

ART IN MODERN EDUCATION. I sometimes wonder if even in the palmy days, art in the secondary school program was well stabilized and publicized. I wonder also if our vision and imagination might soar from that little art room quietly and inoffensively operating under the eaves of the topmost part of the school building to a situation which we might define as an Art High School in which a companionship of the arts, would be the hub and center of school activities, with radiating corridors leading most attractively and logically to history, languages, mathematics, and science through art stimuli.

I see no reason why the creative spirit and integration of elementary grades should not carry through the secondary grades. Higher aims will lead not alone to the much-discussed education for leisure but might likewise create a spirit effective in solving social problems. Henderson says, "If a man is the highest product of creation, then civilization must be judged not by what man produces but by the manner of man produced." I believe, and we must all believe, that in promoting the arts devotedly and whole-heartedly, we are offering something that this world needs in a large measure.

DISCUSSION OF "SECONDARY SCHOOL" PROGRAM

HUGH M. NEWMAN

Managing Director, Chicago Academy of Fine Arts

If the three addresses we just had stimulated your thinking as much as they did mine, this discussion could, like Paul talking to the Disciples, go on all night.

What to one is an abstraction, to another is reality! What to one has a proved familiar face, to another is illusion, and what to one is everyday art, to another are the frills of a holiday. I have never heard the word "frill" used in connection with art except at a WESTERN ARTS ASSOCIATION meeting or in our dress arts department where one is put on a dress hem, or on a sleeve.

To get a little community of thought on the extreme practicability of the use of art as introduced by Mr. Kirby, which, obviously, fits into Miss Foster's suggestion of adapting ourselves and our thought to this new age, I am going to ask you a question that we sometimes project into our own thinking in connection with what we are doing with line, form, and color commercially at the Academy.

Suppose we have to prepare an advertising message regarding Armstrong cork, or Cannon towels, or perhaps a mouse trap that you yourself are putting on the market. What do you presume it would cost you to take, just once, a double page spread in Hearst's "American Weekly," or one page in the *Saturday Evening Post*? What I am trying to convey by this question is the obvious commercial use of color and form; bring them in to our educational uses in their rightful practicability, thus adding one little punch at complete annihilation of the "frill" idea in regard to art.

It costs \$7,000 for one single page insertion in the *Saturday Evening Post*, and \$17,000 for one double page spread in Hearst's "American Weekly." The man who is spending that money does not care what he puts on that page so long as it produces sales for him that will pay back his \$7,000 or \$17,000, plus the cost of designing, manufacturing, and merchandising, and earning a fair profit. That man has a far greater respect for the artful presentation of his merchandise, and the advertising agency has a higher regard for art than, apparently, is held by public school art teachers. I do not think public school art should be so penalized—it should not still be considered by anyone in educational work as a "frill."

Looking at these cartoons here for stained glass windows reminds me that we have for over twenty years been building in New York the Cathedral of St. John the Divine. We are doing this in the spirit of the cathedral era. That is in a Gothic mood, buttresses and arc. Incidentally, there is a room in one of those buttresses that is just as

artistically illegitimate as putting a clock in the stomach of the Venus de Milo.

Carrying out Miss Foster's thought of adapting ourselves, our thoughts, and our art to this new age, I wonder how many of us are conscious that though for centuries the church and the state in one form or another were the parents of the arts, that now has been completely changed in today's Renaissance. The contemporary art purchasing voice comes almost wholly from business. For instance, you can look at a building like the Cunard Building at 25 Broadway, and see there a 65-foot ceiling with murals done by a boy who twenty years ago wanted to be a cartoonist. Burton Holmes says that this is the most beautiful ceiling in the world, bar none.

I think this new era, this Renaissance, this new Art Age which we are in today can, for the time being, be identified as the steel era. As the future looks back a hundred years hence, they may have a better name for it.

What was timely in the fourteenth century was timely because, under the regime of the church and the state, what was built expressed their then timely needs. Recall lovely Pont du Gard, a remnant of Roman civilization down in southern France. The lines of the charming bridge and aqueduct were structural, and what we like about it is its nicety of line which was produced by its timeliness of purpose. Today, when we see our steel structures as an expression of modern thought, we will begin to utilize timeliness in this new art; using as we should, only modern style instead of a combination of Gothic and steel. Then we will be freed from false art concepts just as those are free today who do not consider art a frill. Art is definitely a business, a very delightful profession, but as practical as any other commercial activity. The young artist, illustrator or package designer may commercially concern himself with congruity, force and emphasis in design; later he uses harmony, rhythm, balance—all those principles you enjoy in your easel or decorative painting. The belief that the use of one's skill in commercial work has a tendency to kill the creative capacity cannot be so.

For instance, the man who in the Panama-Pacific Exposition was awarded the honor of being America's foremost artist was active, during his early career, as a commercial painter. This man was Frederick Frieseke, whose paintings you know in the permanent collections of the St. Louis Museum, the Metropolitan in New York, the Art Institute in Chicago, and elsewhere. Eugene Savage started out as a commercial artist. This experience only added to a more intelligent use of his skill shown so admirably in the great intellectuality of his art in the important murals he is executing today. Ezra Winter, who recently finished the astonishingly enormous Radio City mural, was a man who, for a while, did commercial work, was paid for it and learned from it.

This commercial training even aided in Mr. Werntz's grooming him for the Prix de Rome.

Mr. Bernard Shaw, discussing the inroads made on the legitimate theater by the movie interests said so far as he was concerned he'd be delighted to see the movie interests bring about the complete annihilation of the theater, hoping that on the ashes of a completely annihilated theater would grow up one that was worth while.

I am delighted with the depression because it means a falling away not only of outmoded uses of art, of the medieval in our architecture, but it means the beginning of a greater use of art by government and commerce. We are in the midst of a new era, and I believe the Century of Progress in Chicago will be a fine stimulation. I think perhaps it has many phases that can be discounted, but still the art use of the modern age will be reflected there, and there will be some lasting element of newness and stimulation just as there lived much from the Columbian Exposition, even though Bougureau was the French Minister of Fine Arts. Recalling the Columbian Exposition, you find Bougureau was the man who was running the show. None of the great moderns, all then alive, all having done their greatest work—none of Renoir, Manet, Monet, Matisse, Cézanne were represented. Yet in spite of this, we all know that the 1893 fair was a stimulant. Now we are having something that is a minute reflection of the steel age—this new era in which we are living. There are men living today who are far greater interpreters of our age than those represented in the Century of Progress. Where is Mallet Stevens? Where LeCorbusier? They, like the 1893 neglected great, will be remembered when Urban is forgotten!

Mr. Bolander, in conducting us through his small but excellent exhibition of modern paintings in the Columbus Gallery, showed us his prize little Man Ray. This year in Paris Man Ray had a delightful show of modern paintings. Simultaneously, in another gallery, he had a photographic exhibit. It is the boys who are a jump ahead who were not reflected in this Century of Progress exposition. But I am confident, because of the nature of its design, color, form and intent, it will date the steel era development of timely artistic application and use in this country.

There has been the thought expressed in this afternoon's speeches that there has been more progress in the last thirty years than in the last five hundred. As a matter of fact, my interpretation is, there have been more changes in the last thirty years than in the last two thousand.

We are today, with our structural approach to building, slightly comparable to the Egyptians of 2,000 years ago; there is much in so-called modern art, very comparable to Egypt's peasant art of 3,000 years ago.

Miss Foster mentioned some posters made on a small scale. We have been working in smaller areas for a number of years simply to

save time. One can learn just as much about the breaking up of space, form, design, and color working with a small space as with a massive area, and what is more, one can go farther artistically by this time saving.

Parenthetically, I wish to say in justification of this commercial approach, that we have turned out, during the last 150 years in this country, a few literateurs who have been delightfully articulate in expressing their ideas. Walt Whitman, Edgar Allen Poe, Longfellow and the like, were all products of the same vehicle of education that we all have had. But these men brought a largeness intellectually, spiritually, or emotionally which has made a glorious thing of what we all have and use for the necessary expression of our ideas. A few great men of letters; though millions have become articulate in the use of words for practical purposes.

So with art. You are going to see developed in the next fifteen or twenty years, one or two men who will be definitely great artists, who will bring to their work enough largeness to make them artists. The important part you play will bring art appreciation. You will turn out thousands who will be trained to use art for practical purposes, and train millions in the proper appreciation of the few great ones.

XIII. SECONDARY SCHOOL INDUSTRIAL ARTS UNDERSTANDING INDUSTRIAL ARTS OBJECTIVES¹

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The choice of Industrial Arts objectives in the past has been based largely upon historic, traditional, or trade backgrounds. Introduction of the sociological approach, however, has contributed new conceptions to the formulation of these objectives. This newer approach is the one largely used in the interpretation of the following objectives. The first of these deals with the development of desirable *avocational interests*. H. C. McKown² says:

As the amount of leisure at the disposal of the average man increases, so does the importance of a correlative objective—that of properly interesting and directing the pupil, or future citizen, in the wise use of leisure time . . . The new school not only sets up worthy and reasonable ideals, but offers actual practice of these ideals.

In the construction of things, Industrial Arts is specifically able to give direction to adolescent impulses and activities. If, then, leisure increases with future industrial development, we may need to give this

¹ See also *Industrial Arts and Vocational Education*, September, 1933, pp. 269-270.

² McKown, Harry C., *School Clubs*. The Macmillan Co., New York, pp. 6.

subject more and more attention in the schools. Even now the average man spends more time in leisure than in work. The activities selected for schoolwork should carry over easily into adult life. The ancient ideal of craftsmanship is now carried on by choice and for pleasure. Witness the growth of home workshops, and of model building, and note the decided turn from professional amusements to independent activities which call upon the resourcefulness of the individual. Physiologists have found that adolescents are drawn strongly to crude strength and gross muscular activities. Situations calling for finer muscular coordinations lack the appeal present in games, hiking, swimming, and other outdoor activities. It would be reasonable, therefore, to expect that the voluntary constructive avocational interests of adolescent boys would tend to favor those activities that are related to games and the exercise of gross muscular skill.

Burl N. Osburn³ notes the following psychological fact:

One may give a different interpretation to the term "Avocational Interests" for adolescents from what would be given for adults. An adult who has a hobby may spend hours every day for years, deriving intense satisfaction from increasing skill or wider knowledge of the subject of his interest. The adolescent who does this would be exceptional. In view of the psychological tendencies of adolescence, attention might be expected to be spontaneous, of relatively short duration, and possibly of widely selected ranges of interest.

Osburn concludes that in order to meet most effectively the social and psychological needs of the adolescent the Industrial Arts program should:

1. Provide a type of shop that will permit the use of a wide range of materials and processes.
2. Give opportunity for experimentation and expression of many kinds of interests.
3. Make allowance for the variable duration of interests, by a flexible course designed to fit individual cases.
4. Permit the boy to utilize the school shop, at least part time, for the working out of those avocational activities for which he lacks equipment at home.
5. Stimulate interests by a constantly changing exhibit of constructive hobbies of a great variety; the hobby fair is one such means.
6. Utilize all possible means of stimulation in avocational activities.
7. Discover and develop interests and abilities.
8. Exemplify the desirability of its teaching through an instructor who is absorbed in his own hobbies.
9. Keep close contact with other agencies or organizations whose purpose is similar in these respects.
10. Urge and assist boys in the acquisition of a set of tools of their own.

A second objective deals with how to understand *consumer knowledge and appreciations*. One is astounded at the extent of industry's influence upon the individual citizen. *The intelligent choice and use of the products of industry* is the citizen's best means of insuring ulti-

³ Osburn, Burl N. *The Constructive Avocational Interests of Secondary School Boys*. M. A. Thesis, Ohio State University Library, Columbus, 1931, pp. 15.

mate independence. Dr. Bonser⁴ stressed the consumer objective in Industrial Arts in the following manner:

Be able to buy and use industrial products of good quality in material and construction and well adapted to their purposes, at costs that are reasonable; to care for what is secured so it will remain serviceable in its fullest possible measure; to repair or supervise the repairing, when it can be done to advantage; and to intelligently substitute inexpensive for expensive products, when this is needed.

Education of recent years has been directed to a large extent toward efficient production; the present trend is toward efficient consumption. As purchasers and consumers we must build up the element of good taste backed by sound study of things to be purchased and consumed. Commonly purchased articles may be occasionally selected which lend themselves to this method of study in the school laboratory. Woods, metals, electrical appliances, printing materials, drawing for various purposes, homes, clothing, transportation, food, tools and machines, all are significant of content material or subject-matter that may be drawn upon for the teaching of intelligent consumer *selection, testing, operation or use, maintenance, and judging the ultimate satisfactions* accruing from ownership. It is these five points which constitute my understanding of the consumer's purpose. Impartial study of the facts, and the freedom to test and experiment, will lead pupils to draw significant conclusions regarding the social usefulness of some of our present forms of production and the distribution of goods.

Commercial interests may exercise pressure upon the school and the teacher in this scientific approach to the education of a consumer. Such pressure may be avoided by the adoption of objective measures and a scientific attitude. The use of code names for products frequently assists in facilitating such study. The average pupil can be taught to resist the temptation to buy novelties or new types of goods until after he has sought the best technical advice available to him. It is increasingly clear that the citizen can do more and more to protect himself against excessive or unnecessary expenditures, and that he can thus materially increase his income. The consumer should look for the common points of superiority in evaluating his impending purchases. Too much of our purchasing is governed by the power and appeals of modern advertising. Recent writings on this and other subjects pertinent to the consumer are found in the works of Stuart Chase, F. J. Schlink, Paul Cherington, Henry Harap, and bulletins issued by the Government Printing Office. Dr. Warner has particularly emphasized the consumer objective in his writings dealing with the LABORATORY OF INDUSTRIES. DeWitt Hunt⁵ of Oklahoma, made a

⁴ Bonser, Frederick G., and Mossman, Lois C., *Industrial Arts for Elementary Schools*. The Macmillan Co., New York, 1923, pp. 15.

⁵ Hunt, DeWitt T., *A Study of the Term "Consumer Knowledge," and Its Use as an Industrial Arts Objective*. M. A. Thesis, Ohio State University Library, Columbus, 1931.

thorough study of the term "Consumer Knowledges" and its use as an Industrial Arts objective in his thesis.

If our concept of education is that of a complete act, then the *selecting, testing, operation or use, maintenance, and judging ultimate satisfactions* derived from Industrial Arts projects completes the cycle. It would seem that the time is ripe to give the ultimate consumer a measuring device, or a method of evaluating what he chooses and uses.

A third objective deals with how to understand "*common*" *technical knowledge and abilities*. The making of a shop project can *never be more than a means* in teaching. In each shop are found common technical knowledges which form basic teaching techniques. For instance, it would be folly to have a boy make up metal-cutting tools out of wrought iron when it is known that wrought iron cannot be tempered for metal cutting. When a boy is given steel for these projects, he is being taught some metallurgy—common technical knowledges! The ability to heat, manipulate, and form steel into a center punch or a chisel is acquired through watching demonstrations and then by actual practice. Frank C. Moore of Cleveland, in cooperation with drawing instructors, has graphically analyzed the common technical knowledges in drawing necessary to acquiring technique. Some such graphic means of representing the occurrence of these common knowledges in any given shop is of inestimable value in teaching. The ability to perform standard operations can be checked in like manner. Such a procedure makes for consistent teaching, testing, and training. Studies made by Bobbitt, Fuller, Grant, Hopkins, Newkirk, Osburn, Reed, Selvidge, and others, give adequate lists of common technical knowledges, abilities, tools, and materials for the Industrial Arts teacher to use in checking his content materials on this point.

A fourth objective deals with how to understand *personal-social trait development*. The Industrial Arts department must of a necessity organize and operate on some particular plan or procedure to fulfill its purpose. Pupils in an Industrial Arts laboratory learn to work together both as leaders and followers. What and how they produce is reflected in the smooth operation of their particular organization. Social intelligence is becoming more and more important for individual success in such schemes. Too often we find some of our finest secondary-school graduates becoming misfits and failures because they have not learned how to work with people. It is not necessary to stifle individuality, but rather essential to offer opportunities to teach teamwork and lines of responsibility. The unit shop in Industrial Arts developments is frequently giving way to more diversified settings with classes ranging in size from thirty to over one hundred. There is a real problem and a real opportunity in shop organization and management. The shop teacher is foredoomed to failure unless he organizes and distributes his responsibilities in such a manner as to form his classes into cooperative

units. No set rules pertain to such an organization, but we do have precedent established in industry and in the business world. The operation of a personnel organization permits the development of personal-social traits in individual pupils. Objective means for selecting officers and personnel may be used, embracing the use of intelligence tests, mechanical ability tests, and character and personality tests.⁶

Profile charts⁷ of various kinds and other devices should be used by pupils to develop wholesome introspection and self-analysis. A continuous study of trait actions in the laboratory is of significance and should be made. Success or failure on the job is frequently determined by these social variables, and this, frequently, despite a high intelligence and mechanical ability score. The personnel⁸ organization affords a fine opportunity for the pupil to learn of such traits, for he is rewarded or punished in a friendly laboratory setting as they develop, and should come out better for the experience.

Now, in summary, if there has been any technique in this discussion of how to understand Industrial Arts objectives, it has dealt with trying to understand the various points or concepts which describe the nature of an objective. In any school shop setting, the mention of the term "consumer" immediately calls to mind the five points of selection, testing, operation or use, maintenance, and the judging of ultimate satisfactions accruing from ownership. Similarly the exploration objective, which has been omitted in this discussion, calls to mind five other principal points, which include a study of the pupil, a study of occupations, experience in a wide range of manipulative experiences, the handling of many materials, and finally a study of social problems and adjustments. Still other objectives could have been included, were it not for the shortness of the time allowed for this discussion. These would have embraced such important purposes as the aesthetic or design side of shopwork, or specific manipulative attainments to be achieved by individual adolescents, or the guidance function⁹ of Industrial Arts work, and lastly would surely have included an analysis of the specific vocational training possible in Industrial Arts settings, particularly in the senior high school.

The source for the material presented in this article has been largely an analysis of Industrial Arts objectives developed by graduate students in a seminar under the direction of Dr. William E. Warner at Ohio State University during the summer of 1932.

⁶ Decker, George C., *A Testing Program in Junior-Senior High School Industrial Arts Classes as an Aid to Guidance*. M. A. Thesis, Ohio State University Library, Columbus, 1933.

⁷ *My Vocational Guidebook*. The Bruce Publishing Co., Milwaukee.

⁸ Warner, William E., and Others. *Organizing Pupil Personnel in the Laboratory of Industries*. Department of Education, Ohio State University, Columbus, 1930.

⁹ Decker, George C. Ob. Cit.

EXAMPLES OF INTEGRATION IN INDUSTRIAL ARTS

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A well-known teacher recently asked a class composed of experienced teachers just what they meant by the term "creative education." After some time, during which thoughts were hurriedly mobilized for the defense of this popular term, replies came forth which identified this term with suggestions such as "problem solving," "freedom of expression," "development of children's ability to think" and the like. The teacher went further to explain that long before he had ever heard of "creative education" as such, he had encountered instances where groups of children had worked with their teachers on some very practical and immediate problems which affected their interests and welfare. These problems involved the school as a whole and later on were bound to register their effectiveness in the community. It mattered little whether the tasks in which these children were engaged concerned the improvement of the school grounds, the problems of the classroom, or the preparations for a week-end camping trip. There was an obvious lilt to their work and a general attitude that seemed to indicate an interest in what they were doing and a knowledge of approximately where they were going. Such experiences later left their marks in the community. This is what many call creative education. Do not these illustrations somewhat reflect the meaning of "integration" as implied in the title of this paper?

A DEFINITION. The term "integration" comes from the Latin *integro*, to make whole or "bring together the parts." The mechanical concept of the word, "all in one piece" or "organic," and the mathematical one, "not fractional," may further establish its meaning.

EXAMPLES OF INTEGRATION. On the basis of these assumptions we might advance toward an investigation of types of integration to be found as outcomes of Industrial Arts experiences.

EXAMPLE NO. 1. This illustrates an integration of experiences in which several branches of subject-matter were vitalized by a central activity.

A moderate-sized high school in a western mill town enrolled approximately 700 students, a total of 100 boys electing either freshman or sophomore shop courses. The general shop introduced a number of industrial units, among them foundry work, bench woodwork, electrical construction, auto mechanics, and general drafting. What happened in one of these units will serve to illustrate the manner by which integration was carried on.

Foundry work challenged the interests of a considerable number of boys. The work was new and there was some interesting equipment required, which the group decided to build. The science teacher soon became a helpful individual because he showed a special concern with the way in which the construction of the new furnace was advancing, and later began to interest himself

in the actual success encountered in the casting of the metal. The result was a "natural" group vitally occupied with a problem which unified their attention and brought their interests together. The construction of a furnace which could melt aluminum and bronze required the solution of many scientific problems, in which knowledge of fusion temperatures, refractory materials, uses of fuels, had to be tested and evaluated. The science teacher allotted certain periods of his time for conferences on these problems. Later, when the foundry unit was a completed part of the shop set-up, the related material in science, such as coefficient of expansion principles, metallurgical practice in the extraction and refinement of important metals and the composition of alloys were all coupled in a general-science course running parallel with shop experiences. In a similar manner vital scientific contacts with other branches of shop experience were presented in the science course. At the same time conference periods and special group meetings with teachers were called for in the perfection of administrative difficulties as well as for purposes of orienting further needs of pupils.

The shop teacher had in the past paid considerable attention to "related information" as such. He had continually striven for time to present such aspects of it as were directly needed in the shop. He was, however, interested in making much more of it function if it could be connected with the interests which grew out of shop experiences. Lists of interesting and necessary information were made and the "related" subject teachers were called into conference. A number of these became interested in the experiment and followed the program of the groups with whom they worked.

The English teacher found that she could draw upon a new interest with some boys who before seemed inarticulate. The desire to express an idea in writing was not blocked as had previously been the case. They wrote more freely about their shop experiences. The library became a place for wider reading. Topics for some of the reports covered the "design of furnaces," "composition of the newer metals," and "die casting and foundry work in the heavy machine industries." The teacher acknowledged that she was learning many new things. She insisted upon accurate reports throughout and would occasionally send some papers to the Industrial Arts instructor for verification of certain details. Since the students were more willing to write, the teacher's efforts were next directed toward techniques of good writing: clearness, conciseness, and accuracy. A rough count of new words and concepts utilized by the group working on the foundry unit showed an increased vocabulary of approximately two hundred words. These ranged from new concepts of such words as "flask" to such tersely technical terms as "non-ferrous metallurgy."

Reference volumes in the library increased in usefulness, because the desire to write sent students there for more information. The Industrial Arts teacher frequently consulted with the librarian and the class was given additional instruction on the use of the catalog and general source material. All of this chiefly applied to their immediate problems. Biographical reading such as the lives of Henry Bessemer and of Andrew Carnegie became interesting to a few and gave additional contacts with social and economic settings.

It might be worth while to point out some of the values of biography for integration. Most boys of high-school age have a natural interest in the lives of persons who have become leaders in one field or another. Lives of action not only supply adventure, but also seem to satisfy the desire for a certain amount of hero-worship. A skillful teacher may direct such interests into helpful channels for purposes of exploration. It requires analysis of factors which helped develop greatness. It will also lead to a better understanding of the times and social forces under which these personalities became prominent.

On the side of mathematics the general assumption is that courses in algebra or geometry are generally rather insular. To avoid this possibility the mathematics instructor utilized a variety of shop problems which touched upon the actual work the students were doing. Problems involving the estimation of volumes in castings and prices many times required some review of mathematical skills. A laboratory hour was instituted which permitted work

on special calculations dealing more particularly with the activities of the shop. This time was voluntarily spent by students, sometimes in review and practice of skills in which they were deficient, or, as was usually the case, in new calculations which were designed by the teacher to link short cuts with practical experiences in which the learners engaged. Measuring devices were available in the mathematics classroom to be used on real problems. The chief objective in this cooperation between two departments was to establish a better understanding of the usefulness of mathematics to industrial practice as an exact art in the projection of thought. This appears to be a unique contribution of mathematics in its application to our power age. Anything which can be done to make this connection clearer will probably also help in breaking down a barrier which prevents people, through fear, from using a valuable aid to more concise thinking and planning. The methods of mathematics should be appreciated by children because they have in part been responsible for engineering achievements.

SOME ESSENTIAL CONSIDERATIONS. 1. Leadership is necessary in a program directed towards integration. A definite desire to unify learnings and connect them with life problems should be developed among teachers.

2. A well-directed plan of coordination should be carried out, utilizing related material when needed.

- a. Analyze art, science, mathematics, or English relationships.
- b. Analyze the necessarily useful relationships between phases of shop experiences.
- c. Analyze possible contributions of the school library.
- d. Analyze the educational possibilities of visual aids.
 - (1) Posters, charts, etc. Watch the danger of overcrowded bulletin boards and materials posted too long.
 - (2) Slides, models, excursions, exhibits.
- e. Evaluate the relationships to the pupil's life outside of school.
 - (1) Industrial and economic influences.
 - (2) Community and social demands.
 - (3) The home and its demands.
- f. The pupil's own behavior problems.
 - (1) Necessary evaluation of abilities and interests. Desirable tests and information.

EXAMPLE NO. 2. Closely allied to the harmonious learnings established between subject-matter groups in the school is the integration of a pupil's interests inside and outside school. Provided the interests are worth while and uplifting, this problem of integration probably touches upon a very real issue. Socially we are being given more and more time. However, there is a difference between leisure and idleness. The problem obviously is not one which Industrial Arts alone can solve. Leisure can be utilized by all the Arts, but the nature of Industrial Arts puts upon it a large share of this social responsibility. The interests manifested *outside of school* play a large part in shaping a pupil's social progress and should be utilized by the school. Vocational ambitions, individual interests, and curiosity in the field of industry become one of the strongest attractions of the adolescent.

The many clubs usually organized in a junior and senior high school are direct examples of integrating possibilities. They should be designed to further interests as much along Industrial Arts lines as along other lines of possible avocational value. A certain teacher saw fit to investigate the types of avocational desires among boys of his school. Many lines of interest were reported and among them were some Industrial Arts possibilities. This initial survey was worth while, since the facts gave something on which to start. Several new clubs were formed. A model airplane club later developed into a city glider club. The chamber of commerce became interested and in due time established a city-wide model airplane meet as an annual affair. Resulting therefrom two boys developed such proficiency in building scale models that they won a national contest, were given special training by a large aircraft company and were later employed in the model department of the plant.

Another outlet for these hobbies is the possibility of utilizing some of the leaders in the various clubs as speakers in student assemblies. This was done in a number of instances, and the response from the student body as a whole was most appreciative. The progress displayed by students is usually respected by the other members of the group. This opportunity offers just another occasion for a practical use of the language arts. This value of extending the influence and effectiveness of avocational interests throughout the community is an important integrative factor. Often it is able to mold community opinion in interests essential to its general welfare and culture.

Another example offering large possibilities in this direction is the new movement of city planning. We are beginning to learn that it is better to live and work in beautiful and healthful surroundings. Cities as a rule offer stern opposition to first moves in this connection. We shall have to educate citizens to understand that as individuals we shall have to sacrifice some prerogatives in order that a greater number may enjoy the better things of life. Consider the possibilities of an architectural drafting club, or any group of boys in high school who might be interested in a problem of city planning. Give them the proper incentives, advance such interests in the community, exhibit their work, direct further effort toward the organization of a city planning league, and organize its membership. In other words, develop a rounded program of cultural education and see whether the citizens of the community will not ultimately appreciate it.

Ultimate considerations which might have a bearing upon the problems of this kind of integration might be stated as follows:

SOME ESSENTIAL CONSIDERATIONS. 1. The teacher's responsibility should include a fair share of avocational supervision.

2. Cultural opportunities should be canvassed and be directed so as to benefit the community.

3. Effective means of educational extension need to be devised to keep the community interested. These may include (a) newspaper articles, (b) leadership in service clubs and other activities, (c) radio broadcasts, (d) printed pamphlets of information, (e) city-wide contests and exhibitions.

EXAMPLE NO. 3. There is another phase of the problem of integration which is linked definitely to the types just mentioned. It is the problem of integrating within the pupil various traits and abilities that go to make a desirable personality. This seems to be a major problem

of intellectual and emotional adjustment which dare not be left to chance. We must again take inventory of the facts whereby improvements in character and personality may be made and thereby help the adjustment through good guidance. The development of qualities of leadership, or intelligent followership; ideals of service and dependability; neatness and a sense of values regarding tools and materials; habits of inquiry; all these are part of the complex process of experience described by some as "concomitants of learning." Concomitants though they be, they tend to become some of the most important outcomes of a child's experience.

As an example of the far-reaching possibilities in this type of service we might mention the quite commonly used system of foremanship in the shop. Many schools have introduced at least a slight amount of this sort of organization found in actual occupational relationships. Wherever introduced this should not permit of any pseudo-responsibilities on the part of student leaders, foremen, or committee chairmen in the particular shop problems allotted to them. A longer and wider view takes into consideration the need of a real personnel organization as a part of the whole problem. In some shops teachers have grasped the significance of interrelationships between the work in the shop, the boy who is doing it, and the community outside, and have therefore devoted time and thought to the need of personnel organization.

SOME ESSENTIAL CONSIDERATIONS. 1. The teacher should acquire the best possible information about a pupil's abilities and personality: (a) He may secure data from a central source; (b) he may use educational ability tests of his own.

2. Teachers need to have a knowledge of mental hygiene.

3. Pupils should be kept in touch with a schematic plan or organization chart which fixes responsibilities and interdependent relationships.

4. Conferences between teachers and various groups of pupil leaders become necessary. Meetings should be announced in advance, allowing time for preparation so that problems may be adequately discussed. Both teachers and pupils should prepare for the conferences.

5. A record of pupil progress in personality development and leadership is desirable.

EVALUATION OF INTEGRATIVE METHODS. Commonly there are found two methods of approach to the problem of the integration of knowledge and experience: (1) the centralized experience relationship, commonly called the job core type or activity core type, and (2) the parallel subject relationship.

In the centralized experience relationship a core problem or job becomes the focus for whatever subject-matter is required. The science, art, mathematics, or auxiliary information which is necessary and pertinent should be quite naturally used and therefore better understood because of these centralized focal relationships.

In the second type, that of the parallel subject relationship, an attempt is made to draw the needed information from coexisting cate-

gories of knowledge and so articulate the pupil's experiences that a well-rounded set of generalizations may result. One teacher is called upon to reinforce another in building desirable habits and attitudes.

ADVANTAGES OF THE JOB CORE TYPE. 1. It is a natural method of problem solving. 2. The type of problem or job determines the order in which content material is needed. 3. The type of problem also determines the order in which it is needed. 4. It stimulates and retains the worker's interest. 5. It is consistent with experience.

ITS DISADVANTAGES. 1. Existing school organizations of subject-matter departments make it difficult to use. 2. There is increasing difficulty in selecting core interests satisfying to all pupils. 3. With larger groups the administration is more difficult. 4. The method demands skilled teaching.

ADVANTAGES OF THE PARALLEL SUBJECT TYPE. 1. A single field of subject-matter comprises a wide scope of related knowledge. (Science might include biology, zoology, astronomy, and chemistry.) The teacher in such a field has the opportunity of articulating a body of rich information with a variety of human problems. 2. As an administrative exigency in large school groupings, a certain amount of integration might be carried on among these large fields.

DISADVANTAGES. 1. Each subject is in danger of becoming formalized. 2. The stimulation of natural interest becomes a greater problem. 3. It is more difficult to identify the integrated work between subjects as possessing life-like reality.

SUGGESTED CRITERIA. In conclusion it might be helpful to give a list of criteria for a better integration among various branches of the school program which Mr. M. E. Irwin has outlined for use in the Detroit city schools.*

1. Are the proposed activities in harmony with the accepted educational philosophy?

2. Are these activities natural to the child?

3. Is the child rather than the subject the center of activities?

4. Are the activities such that the child may generalize in terms of life outside of school?

5. Does the subject-matter activity, besides giving needed skills and knowledges, contribute to the realization of the general objectives of education?

6. Are the elements that contribute to attitudes or character traits obvious enough that generalizations may be made readily?

7. Are all who are taking part in the activities conscious of the unity of each activity?

8. Do any of the participants suffer because of the activity?

* Irwin, Manley E. "Planning Activities to Correlate School Experiences." *Detroit Educational Bulletin*, 15:7-8, Dec., 1931, Jan., 1932.

9. Do the activities induce the pupils to put forth their greatest effort without unduly discouraging any individual?

10. Has the activity social value either in itself or as a by-product?

11. Have the other agencies of the child's life been articulated with school life?

12. Can the experiences be gained better through agencies outside of the school?

THE SHOP TEACHER AND HIS PROFESSION

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When I was asked to discuss this subject I agreed to do so because it suggests a point of view which is quite generally accepted by teachers and school officials and one which forms our most serious handicap. The subtle suggestion that the man who teaches in the shop is different from other teachers is most unfortunate but our professional literature is full of it. This suggestion tends unconsciously to place such teachers in a lower cast. I am not one who would encourage this by a discussion which would make of the man who teaches in the shop a different sort of individual from the man who teaches in the physics laboratory or in the algebra classroom. If teaching is a profession every man who teaches whether in the shop, laboratory, classroom or on the athletic field belongs in that profession because he is actuated by a common purpose although he may use different means of attaining the end.

The purpose of education is to make our young people into happy, useful and successful citizens. We wish to change them by developing new habits, attitudes, points of view and skills which will enable them to adjust themselves more readily to the requirements of society. Learning means change and all learning is based upon experiences and their interpretation. In order that we may secure the desirable changes, the experiences must be carefully selected and wisely interpreted.

The purpose of the school is to provide a situation in which pupils may secure selected experiences in as economical way as possible. There may be a wide range of choice within the group selected but by the very act of establishing a school, we limit the range of experiences. The shop represents our effort to provide a type of experience which we believe will be more effective in working certain desirable changes in the boy than the other experiences provided in the school.

It is the teacher's business to arrange a situation in which the pupil will be interested in getting desirable experiences and to assist him in their wise interpretation.

Such, in brief, is my understanding of the meaning of education, the school, and the profession of teaching. Every man who engages

in teaching has similar purposes, similar duties, and similar responsibilities. The difference lies in the means by which we seek to attain our ends.

The teacher in the shop desires to develop in the boy the same attitudes and habits that are set up as objectives in the other fields of general education. He believes, however, that in order to make the boy into what society wishes him to be, he must give him a broader experience than is provided in the academic classroom and that he should have a more realistic interpretation of these experiences.

The teacher uses the shop because that equipment and environment provide an opportunity to give experiences which we believe to be the most effective and economical means of developing certain desirable habits, attitudes and accomplishments. The shop is not in the school solely in order to provide an opportunity for the teacher or the boys to make things. It is there to provide an opportunity to learn certain things, just as the physics laboratory is there to provide a more desirable learning situation in physics. There is no more reason for thinking of the man who teaches in the shop as being professionally different from other teachers than there is for thinking of the physics teacher as being different. The teacher in the shop is engaged in a task not less noble than that of any other teacher. He is using a different type of experience but with the same definite purpose of developing boys into more happy and useful men. Who will maintain that the experience the boy gets in the shop under a wise teacher does not contribute as much to that end as the experience he gets in any of the other classrooms?

A profession, we are told, is a vocation in which one has some special knowledge or accomplishment which is used as a basis of instructing, guiding or advising others. If this is true, teaching is preeminently a profession and those engaged in teaching must accept some very definite professional responsibilities. Men who are associated in a common purpose develop certain ideals, hopes, and aspirations along with a pride in the accomplishment of the group. This we call "professional spirit" and it is one of the most effective means of developing pride in personal accomplishments. It gives us an unselfish share in the satisfaction that comes through the recognition of the accomplishments of the other members of the group and inspires us to greater effort in order that we may contribute our share to the reputation of the profession.

Pride in one's own ability to do things—to perform valuable services well—is one of the best guarantees of good citizenship. We must take pride in the work and in the accomplishment of our group. We should strive to support and encourage our associates in their work and to build up a professional pride. In doing this we are not only aiding our profession and our associates, but we are aiding ourselves.

During my entire professional career I have considered it a part of

my business as a teacher to attend professional meetings even when salaries were low, times hard, and work heavy. Money spent in this way has been one of my most profitable investments. I never attended a meeting at which I did not get some valuable idea or have some idea of my own cleared up through criticism. Often these ideas come from unexpected sources; more frequently than not, in private conversation with men whose names do not decorate a printed program. You may be disappointed with the speakers on your program, but you will not be disappointed in the help you will get in sitting down and talking over some of your problems and plans with your acquaintances who have had similar problems.

As a member of a great profession the teacher in the shop has reason to be proud of his opportunities and his accomplishments. It is not mere sentimentalism when I say he is engaged in one of the noblest and most far-reaching tasks man ever undertook. He is seeking consciously and with deliberate plan to give experiences which will modify the lives of human beings and give direction to their course through the coming years. He is the maker of men rather than the maker of things. The material things made in the shop are as chaff swept away by the wind; the enduring things are the changes wrought in the youth. The teacher will do well to keep in mind the words of Carlyle: "No idlest word thou speakest but is a seed cast into time to grow throughout eternity."

XIV. SECONDARY SCHOOL HOMEMAKING CLOTHING, THE INDIVIDUAL'S EXPRESSION OF ART

JESSIE M. McVEY

Ohio Wesleyan University, Delaware

Fortunately it is unnecessary with educators to spend time in convincing individuals that the matter of dress is an expression of art in one of its various mediums. Certainly there are individuals who still think of art as being represented by one of those arts which may be found in the gallery, such as painting, sculpturing, pottery. Many keep their appreciation of art carefully laid away for use when looking at a beautiful painting or tapestry or for the appreciation of some rare object of art handed down from other days. It is astonishing how many people who believe that art begins and ends with pictures. They define an artist as "one who paints pictures." A person who may have a great appreciation for the paintings of Corot or some other painter of landscapes may yet pass through the living beauty of nature without seeing it. Tradition cannot justify an interpretation of art from this standpoint. Michelangelo said, "I know of but one art," he who knew all arts, and was a master of most of them. Whistler was not only a master in oil painting, water color, etching, and lithography, but did some strik-

ingly beautiful work in interior decoration and even designed costumes on occasion. In each medium Whistler expressed himself in simple, refined, exquisite effects. With him, as with Michelangelo there was but "one art," the differences being in medium only. The Greeks expressed art in everything about them, from the fashioning of the lowliest cooking utensil to the most beautiful painting or building. Have not the Grecian women always been used as examples of beauty? Of course, dress played a part in this judgment. There is no essential distinction in artistic character between the commonest household article, artistically wrought, and any other production of artistic genius. The pleasure we derive from a beautifully ensembled costume may be of the same quality as the pleasure we derive from looking at a beautiful painting.

We, in this country, have been prone to smile when a dressmaker sets herself up as an artist, but in France the painter and sculptors regard the great style designers as brother artists. Why not? Do not the same artistic principles lie behind the designing of a beautiful costume as in designing a painting? Art is art, whether found in a gallery or out of it, in a painting or a gown. It is not a thing apart from our daily life as so many imagine, but touches it at many points whether we are aware of it or not.

Art is expression, a language by the use of which we put forth our purposes, our ideals, our thoughts, our feelings and experiences. Each of us may have an aesthetic appreciation of many forms of art, but have our principle interest centered in some particular art. How fortunate is that person who can make the colors on a canvas speak his thoughts and feelings; the musician who is able to express the depth of his feeling through his music; the sculptor whose hands are skilled in molding lines which may satisfy his need for expression. With each of these artists, the urge for creative expression has been strong. He has been willing to add to any natural ability he may have, long hours of study that he might be able to express himself in the very best possible way. No painter is willing to exhibit canvases which represent his first crude, unstudied efforts, nor would the musician present to his public the results of his first elementary training. Satisfying results can be obtained only through study and practice and depth and beauty added through the richness of the life experiences of the artist.

Few of us are painters, or musicians, or sculptors. If an opportunity for creative expression depended on the skillful use of any of these mediums, what a feeling of frustration most of us would have. Fortunately, the immediate environment of everyday living presents infinite opportunity for the appreciation of art, and its expression.

The community environment may through its buildings and landscaping represent certain characteristics of the type of families settled in the community. The home and its furnishings should express the

ideals and perhaps character of its various members. The individual in the home has the possibility of expressing herself through her personal appearance. Each of these mediums uses the same fundamental constructive principles as those used in any other piece of art and should be as skillfully handled.

Since clothes are the most intimate environment and therefore the most personal expression of an individual, they are the first to take on the finality of one's thinking. They are the first to represent one to those with whom one comes in contact. One thing is a most necessary point to remember that in our use of dress as a medium of expression each of us is judged, either consciously or unconsciously, by those whom we meet. It depends upon each of us as individuals as to whether or not this judgment is accurate or inaccurate.

I commented on the unwillingness of the painter or musician to present for the criticism of the public, products from untrained hands. He must spend long hours in a study of appreciation and technical skill before he creates a satisfying result and yet how often do we see the woman depending on some native ability only, in guiding her in her selection of dress. If the same principles underlie the creation of art in any medium, is there any more reason to expect that an individual will instinctively know what those principles are and how to use them in the matter of dress than in any of the other arts. It takes much longer to become skilled in the successful use of most of the other mediums. This makes it all the more deplorable that so many are unwilling to spend any time to learn to use materials in a satisfying way for the creation of beauty in dress and the expression of human personality.

If I were a painter, and was starting to paint a canvas for my own particular use, I would use three major principles as a foundation: First, a representation of something of specific interest; second, unity of the picture as a whole—color, lines, mass and texture, so that one has a definite feeling of satisfaction in the whole composition; and third, a feeling of unity with the background where it is to be used. I am not a painter, but I can use these same general rules in my selection of a painting; I can also use these same rules in creating or selecting a costume. The costume must, if it is rightly chosen, represent me; to act as a medium of expression of the personality I wish all to know. It has been said that our clothes are our calling cards. Are they the kind that represent us as we desire? Before an individual can be sure she is following this first rule in the selection of dress, it is necessary to apply a certain amount of self-analysis, to find out the person she really is or wishes to be. After this analysis, getting the opinion of an honest friend or the expert advice of one who knows her very little, will aid in determining whether or not she has been expressing this personality through her dress. Not a person and a costume but a cos-

tume so unified with the personality that it will not be regarded as a thing apart for admiration or criticism.

The second point for consideration should be the unity of the costume in all its details. Would you enjoy a picture in your home in which there was no semblance of orderly arrangement of line or color? You would be only too quick to sense the lack of unity in the composition and replace it with something more restful and harmonious. And yet how many of the severest critics of the first mentioned painting, think of the selection of a costume in parts rather than as a whole ensemble. Blue dress, brown shoes, black hat, or varying values or intensities of colors used; sport dress with high-heeled pumps; picture hat with a tweed suit; need I mention more? You've seen them and do see them every day. Articles of clothing bought perhaps because of color preference or because they are fashionable and used together, not costumes planned first and details selected which harmonize and make a pleasing whole.

Third is the consideration of the background in which the costume is to be worn. If it is a costume principally for use in the home, it is to be expected that the color, line, and texture will be chosen which will harmonize with and be set off by the decoration and furnishing of the home. Providing, of course, that the interior decoration is suitably done. If the costume is for the office or class room, a certain amount of restraint in the design and color would be expected. Too often costumes are bought because of some pleasing quality to the purchaser, and worn for most any occasion, with little or no regard for the background. Environment can be made a very desirable asset in enhancing the beauty of a costume and its wearer.

In order to create a costume which will be successful from these three standpoints, we have various aesthetic elements with which we have to work: color, line, mass, and texture.

Color, although the least understood of any of these elements, is perhaps the most potent means of expression. One may get an aesthetic appreciation of color by association, that is, by becoming familiar with various combinations by actual observation. To learn to use color successfully at all times, it is necessary to study some of the principles governing harmonious combinations. Once these are firmly fixed in one's mind, it is possible to secure the best effects with little effort. Color in dress should be made to do two things, first, to express the personality of the wearer, and second, should be made a means of enhancing the natural coloring of the individual. I often ask my students to check on the number of times they may hear the remark "Isn't that dress a lovely color?" as compared with the number of times they hear "Doesn't she wear that color well?" Women in their dress should realize that a hat or dress may be good in color when regarded as a unit within itself but when it is worn it becomes only a part of

the whole ensemble and will be harmonious and becoming only as it suits the coloring of the wearer. Very often, colors are worn which repeat the color of the eyes such as blue for blue-eyed persons and brown with brown eyes. Usually the eyes are sufficiently expressive as to make it unnecessary to emphasize their coloring. Why not use those colors which emphasize by repetition the glowing tones of the skin, or that color which, by contrast, brings out the clearness of a cooler skin tone? Those who have studied color in its relationships have little to do with the demands of Dame Fashion. I am quite sure that few would follow some of her present dictates if they knew the disastrous effects produced on the coloring of skin and hair of the majority of individuals, cold greys having no possible relationship with the warm tones of the average person. Bluish purple emphasizes the bluish shadows wherever there are shadows in the face and neck.

Many choose close values of one or two colors because their knowledge of color is not sufficient to give them confidence in choosing other combinations less monotonous. Others choose many colors because of their love for color in itself. The latter group is far more difficult to improve. Everyone can wear a variety of colors yet comparatively few colors really do something for an individual. Add interest by the use of the unexpected, or the repetition of some subtle color note. Always remember that each wardrobe should have a tonal quality, that is, a series of color notes constituting harmony with a certain dominating note to which the rest are more or less closely related. Thomas Bodkin has said, "The true colorist never applies a touch of color to his canvas without considering what its effect will be on the colors already there. One ill-considered touch may change the whole effect of his picture." And so it is with costume, one unstudied addition to the costume itself may spoil an otherwise interesting and beautiful whole.

In a costume as in a painting, the choice must be made between line and color. While color usually attracts the attention first, line not only is capable of defining form and adding a decorative feature, but also has a psychological quality. It may suggest strength, stability, calmness, serenity, repose, or other qualities. Lines are often used to add unity to a piece of art by leading the eyes through various parts and thus making a harmonious whole. Lines in costume are often used, to create optical illusions. This may be desirable in certain instances where emphasis on a particular feature is not desired. Line plays a very important role in the apparent proportions of the figure. Usually the tall person may be made to appear much taller with the use of vertical lines, the shorter person shorter with horizontal lines. Certain kinds of lines express types of costumes for specific use as well as for certain type of persons. Oppositional lines may denote an aggressive personality as well as a costume designed for business use. Transitional lines may mean the softer quality of the feminine personality and be

used in a costume for informal use. In the use of line and space as well as color, one must bear in mind that each line and space adds some quality to the costume. Their planning should not be left to chance or to the designer of commercial patterns. The character of each line and space should be carefully studied with view to its effect on the physical characteristics and personality of the wearer and its relationship to the total ensemble.

It has been said that "The great painters never lose sight of the fact that it is paint with which they are expressing themselves." And so it is that the successful designer of costumes should never lose sight of the textures with which he is working. Often a student thinks that a costume designer needs only to know how to draw and paint successfully to be able to design a costume. Even this student, in order to represent a design through the medium of paint must know the texture of certain fabrics. Stiff, hard textured fabrics lend themselves to that type of costume which has only the simplest and straightest of lines. Soft, pliable textures such as silks, chiffons, certain kinds of satins are used for soft, flowing lines in costumes. Few realize how much the beauty of color in fabrics depends upon their texture. A yellow that is gorgeous in silk may be flat and disagreeable in cotton. A red that may be rich in soft wool may be harsh and aggressive in satin. The quality of texture contributes much to becomingness. Hard shiny textures which reflect light conspicuously such as satin, are trying to the complexion. More becoming are the soft, dull textures. Texture adds interest and personality to a costume. The costume artist must study the personality of the wearer and choose only those textures which will bring out the most desirable qualities.

Having gained some understanding and appreciation of the aesthetic elements, one must next consider the principles which hold them together, namely, the principles of composition. Time does not permit a detailed discussion of the possibilities of the use of these principles although upon their use depends the successful result of an artist's efforts. Composition means the putting together of many parts into a whole. It applies to all of the arts, but means a great deal more than merely putting together of the aesthetic elements of any art. It has a two-fold purpose, that of selection and arrangement. Good selection without good arrangement will not accomplish much; neither will good arrangement without good selection.

The principle way of creating composition is by repetition, by putting like things with like things. These like things may be alike in physical appearance or emotional significance. They may be lines, shapes, values, or textures. They may be exactly alike or partially alike, the same or similar things. Too much repetition of sameness in dress may create perfect harmony but be monotonous as is the repetition of white in collar, cuffs, frill, and facing of hat. A painter achieves

interest in his canvas through the subtle repeat of color or line or space in an unexpected manner. The same effect can be achieved in dress if carefully studied. The only general rule that can be given is that there should be unity to enable one to grasp the whole without confusion, and enough variety to lend interest.

Rhythm is the tool which the artist uses to create movement to his composition. A musical composition would not be enjoyable unless there was a certain rhythmical quality. Pleasure from dancing is derived from the rhythm of movement. When we can recognize rhythm in costume the same as we can in music, we have learned to use one of the important principles of composition. A series of accents in lines, shapes, or colors that lead the eye along is better than a spot here and there with no relationship. Rhythm is related movement and the successful designer will choose colors and lines which are closely related with a repeated accent to add interest.

Subordination in the composition of a costume is that principle by which the eye is carried to the most important thing in the arrangement. It is important because of the desirability of subordinating the costume as a whole to the personality of the individual. The lines of the hat, the shape of the neck line, the use of a fur collar, all of these are aids in subordinating interest in the person who is wearing the costume.

In the art of dress, consideration of scale or proportion are highly important. The woman who asks "How long must I wear my skirts this year?" is thinking not of the proportion of her own costume. Likewise is the person who wears a three-quarter length coat because everyone is doing so. Each figure should be carefully studied and correct proportions determined. These should be modified as little as possible to meet the dictates of fashion.

Balance in dress may create an indifferent scheme or mar a good one. The obviousness of even balance, of things exactly alike, creates monotony. It is difficult to achieve balance in the construction of the costume itself and to counterbalance one mass with the other as in the use of accessories. Balance should be planned to give a satisfying sense of repose.

The designer of costumes must realize that certain things should be known if she is to produce successful results:

1. Always express the personality of the wearer.
2. Remember that the body is a part of the ensemble.
3. Remember that a costume includes what is worn by the entire figure from head to toe and should be planned as such.
4. Always keep in mind the necessity for unity and harmony in the individual costume and the wardrobe.

5. Add some note of interest, whether in color, line or texture.

6. Be individual. Remember that no two people are identical either in personality or physical characteristics. Therefore each costume is a matter of individual planning.

There is a real problem in bringing the average person to realize that there may be beauty in everything, and to realize that art is something other than painting, sculpturing and music.

TEACHING PROSPECTIVE CONSUMERS HOW TO BUY

VELMA PHILLIPS

Director of Home Economics, Ohio University, Athens

Teaching prospective consumers how to buy is in the experimental stage. Although there is more illiteracy in this field than in any other, few educators are attempting projects in consumer education. Some of us who have tried to launch out in this field have met perplexing difficulties. We have decided that our most important work is to face squarely social and economic problems. Facing social problems courageously is dangerous work for education.

When we begin by analyzing the status of the consumer in the present economic order, we face our first social problem. The consumer is thought of and spoken of as a person with a grievance. We find in current magazines and daily papers cartoons depicting the "poor consumer." Everyone is a consumer—has everyone a grievance?

Could there be any educational value to the Junior or Senior High School boy or girl in studying the unequal distribution of wealth? Would it be possible for them to understand that 10 per cent of the population have 35 per cent of the purchasing power? Perhaps if these students could discuss and formulate plans for society's modification of the existing distribution of incomes, they would be more intelligent voters and legislators in later life and more socially minded members of their school and community groups.

One of our most influential manufacturers is quoted as ingeniously pointing out that it is not even the business of industry to provide employment at all. The business of industry is to produce marketable commodities and to sell them at a price that will give a satisfactory return on the investment. It is only as an incident to the performance of this function that industry has practically concerned itself with the people to whom it pays wages as a part of the cost of production.

High school students should be able to analyze this viewpoint and generalize its ultimate effect on the status of the consumer.

Eugene R. Black, Governor of Federal Reserve Bank of Atlanta, recently said that. "What this country needs is a five-cent standard of living. We have been living in an auto, Frigidaire, radio era. We cannot

pay our debts and continue in that atmosphere." High school students could learn to think and think clearly by discussing such philosophies. Could they learn by calculating how low a standard Mr. Black had in mind? Did Mr. Black want to lower his own standard of living? Is it necessary to lower everyone's standing of living in order to punish those who have been living beyond their means? When is it wise to spend next year's income? Is installment buying all right if it is not overdone? When is it overdone? Working out these problems will prevent any class in consumer education from being dull.

High school students today are enjoying a high standard of living. They are planning on a college education. Some of them dress so well and have so many expensive social enterprises that the students from the low income group are made miserable. Some decide to stop school altogether, thus lowering their standard of living. High school students should be able to understand the effect their own standard of living has upon society. Such controversial issues will humanize teachers, help our pupils to mature and make our education real.

In the last quarter century real wages in all manufacturing concerns increased 30 per cent while productivity per employee increased 54 per cent. In 1929 the president of one of our steel companies said, "If the equilibrium between production and consumption is maintained, there is no reason, in my opinion, why our present prosperity should not continue indefinitely." Could high school students point out the equilibrium when laborers can produce one-half more and only have purchasing power to buy one-third more. Why is it that we cannot long contrive as consumers to acquire and enjoy the goods which, as producers, we can readily turn out?

We would all enjoy hearing a high school class discuss the social problems involved in the producers desire for profits, which results in many thousand gallons of milk being poured into the rivers and creeks, fresh vegetables being dumped into lakes, grain being burned, and cotton plantations breeding a destructive weevil. Why is this done? Who profits by it?

Mr. Hanna in a recent Teachers College Record says:

Boys and girls must be given the picture of a shorter working day which will allow more leisure to utilize the increased mass of cultural commodities. Pupils must be indoctrinated with the determination to make the machine work for society. Selfish motives for private profit will undoubtedly have to be cast aside with other outgrown social and economic theories. We must substitute drives for general social welfare. The great American ideal of an enriched life for every man, can be achieved through a new social will and control.

Our modern technique of production has recently been extolled. Modern machinery can produce marvelous effects. Why then do we find so much rubbish on the market? "Rubbish making is our largest industry." "All but a tiny portion of our houses are furnished with

rubbish, curtained with rubbish, and fastened up with rubbish." The prospective consumer must be made to realize the difficulties involved in finding the resources available and avoiding the pitfalls caused by rubbish manufacture.

The young student will find a study of the manner in which goods are chosen most fascinating. He should study the factors which make for confusion; changes in availability of goods; new kinds of activity; rising standards of adequacy and comfort; a multiplication of the influences playing upon the consumer and shaping his habits. Consumer fickleness which makes them shift from brand to brand, to change their ideas about family organization and personality adjustment, offers a challenge to the young consumers. "Can one buy intelligently on the modern market?" is a good question to ask the prospective consumer. Lack of knowledge of manufacture presents a major problem. Will anything we teach today be true tomorrow? Twenty per cent of all merchandise is antiquated before it can be sold. Inability to know true quality is another problem. By inspection of sheets consumers were able to recognize only the poorest quality as indicated by scientific tests.

Equipment is meager for testing all the multitudinous merchandise needed for food, housing and clothing. Advertising lacks exactness, is pseudo-scientific, and indulges in superlatives and exaggerated statements. Puffing is a normal part of advertising.

The third phase of consumer education should develop critical judgment as to what is better and what is worse in any field. This is a real need today. John Dewey says, "He who has learned to read without having learned to judge, discriminate, and choose has given hostages of dependence to powers beyond his control. He has prepared for himself a readiness to undergo new modes of intelligent servitude."

The consumer should learn, while young, to plan expenditures. This is not as simple as it sounds. Consumers must plan for times when prices are rising and change in times of falling prices. Some people enjoy simplicity; others are bored with it. Some have been accustomed to one level and a change is most difficult. The young lawyer's family will spend very differently from the bricklayer's family even when they have the same income. Some family income has to care for chronic illness, extreme old age or other family characteristics. Planned spending is not so simple as merely setting aside a cut and dried per cent for each division of the family budget. Merchants testify that children are buying more things today unassisted by parents. Perhaps they are not too young as high school students to learn to plan and to choose.

SOCIAL, ANNIVERSARY, AND FRATERNAL PROGRAMS

XV. THE GET-ACQUAINTED SESSION

ADDRESS OF WELCOME

B. O. SKINNER

State Director of Education for Ohio

We are happy to welcome you to the State of Ohio. We are glad to have you come to the city of Columbus.

I have a notion of my own that every child ought to have an opportunity to perform. I have an idea that a child should be given an opportunity to draw. We are hearing a lot these days, and the word "frills" seems to be one of the greatest words in the vocabulary of those who are opposed to the public-school program, and yet when we ask for a definition of those things, we get some very funny answers, and when we ask them what they want for their children, they always say that music and art and literature contain the very things that they are most desirous that their children shall have.

Now, when is a subject fundamental? It is fundamental when it becomes a tool for making a living. Reading, writing, spelling, and arithmetic—in an elementary way—these are fundamental. A thing is also a fundamental when it is applied to the making of a more pleasant life, and the person and home more attractive; when it develops desirable qualities in the youth, fosters health, safety, conservation, thrift, fire prevention, kindness to animals, courtesy, a wise expenditure of money, and so on. It is a fundamental when it develops a civic pride, artistic buildings and surroundings. It is a fundamental when it prepares any considerable number for better use of leisure time. It is a fundamental when it develops the spiritual side of the human being, the sense of beauty.

Many will remember in Hudson's *Green Mansions*, where the introduction is written, I think by Galsworthy, who said, "The sense of beauty is God's best gift to the human soul."

Then another quotation, which I think is from Browning: "For don't you mark, we are made so that we love first when we see them painted, things that we have passed a hundred times or more, or cared to see." Someone has said, "These people find that life is more than meat and the body than raiment." They have discovered what everybody discovers sooner or later, that there are three irrevocable, uneradicable, and insatiable hungers in the human being. One is for truth and

knowledge; another is for goodness; the third is for beauty. You cannot eradicate the love for beauty.

I have set down, as I have seen it, the answer to the question, "When is a subject a fundamental?" You will agree with me here. You will agree with me thoroughly that possibly no other subject in the curriculum will come closer to fulfilling or answering this question.

My desire, as I have said, is to give the child the opportunity to develop himself. No curriculum contains all the fundamentals until it has in it such grains of life as will touch the interests and the capacities of every student in the school.

We move so slowly, but my hope is for you that you may have every success, and that you may have enthusiasm enough to develop in your students and in your respective states the kind of art programs which the children deserve.

GREETINGS FROM THE EASTERN ARTS ASSOCIATION

BURTON A. ADAMS, *Secretary*

The EASTERN ARTS ASSOCIATION has sent me here as its official representative to express to you our feeling of comradeship and our appreciation of what you have done, and the help that we have received from you in many ways in the years that we have been both working toward the same end.

I have heard a number of things and read some of the things in the Ohio papers about some of the awful things that have happened to Ohio's schools. I regret it, and I am happy to say that although we have had a lot of hard luck back in New England, that in my own state, at least, we haven't been seriously injured as yet. This last winter several things that we have considered inimical to the progress of the schools have come up for action in the legislature and have been not only defeated, but decisively defeated. Moreover, we think we see the end, and I want to just point out to you that we should thoroughly realize that where we are teaching something that we know is a *fundamental*, the only thing we can do is to be as courageous as possible, and wherever possible let our light shine so that other people will know it, too.

GREETINGS FROM THE SOUTHEASTERN ART ASSOCIATION

GEORGE S. DUTCH, *President*

Miss Blanche Calhoun of Tampa, Florida, and I have come to this meeting as Vice-President and President of the SOUTHEASTERN ART ASSOCIATION. We did not think it wise to have an association meeting this year. Times are hard down South. They often are, but we couldn't see, with a good meeting in Washington and a good meeting here in Columbus, the need of another meeting, perhaps farther away from many of our members than the two I have mentioned. I can only

extend the greetings of the youngster of the art organizations to this organization, and apologize for its youth. We hope, with age and youth combined, in another year to have a noteworthy program. We hope you people may find your opportunity to come sometime to see us. You will discover, wherever we have a meeting, a charming place and real Southern hospitality.

RESPONSE

WILLIAM E. WARNER

President, WESTERN ARTS ASSOCIATION

It is a distinguished audience, indeed, that we have here tonight. We are delighted to welcome the many representatives from other professional organizations interested in the various arts. I wish I might call out the names of leaders in some of these organizations who are now in the audience. They come from many sections of the United States. Of greatest interest, however, would be to review the names of individuals in the audience who have long been friends and active contributors to the success of the WESTERN ARTS ASSOCIATION.

We are delighted to have you with us here in Columbus and have planned a great many things to make your stay enjoyable and profitable. The program this year was built in an attempt to satisfy a wide range of professional interests and needs. . . . (Dr. Warner then outlined somewhat in detail the high spots of the programs to follow throughout the week.) . . . The Convention is bound to be successful because you are here.

MODERN ART: PARIS TO THE GRAND CANYON

DUDLEY CRAFTS WATSON

Extension Lecturer, Art Institute of Chicago

Mr. Watson presented his beautiful music-picture symphony, which, of course, has been impossible to reproduce here.

XVI. THE GENERAL ALUMNI LUNCHEON

GORDON JAMES, Toastmaster

Sandusky, Ohio, Purser, the "Ship" Organization

Miss Eunice Ryan of the School of Home Economics at Ohio State University, made all arrangements for this luncheon as Chairman, and Mr. James presided in very humorous fashion. His notes for the occasion were kept on an adding machine scroll, which accidentally slipped and rolled clear across the room.

Music was furnished by the Ohio State University Men's Quartette.

ROLL-CALL OF SCHOOLS

VINCENT ROY

Head of the Teacher Training Department, Pratt Institute, Brooklyn

As Professor Roy called the names of various schools where Art, Industrial Arts, and Home Economics teachers are prepared, graduates of these schools responded by standing and frequently by singing school songs.

ART IN THE NEW AMERICAN LIFE

DUDLEY CRAFTS WATSON

Extension Lecturer, Art Institute of Chicago

Mr. Watson presented another one of his very interesting illustrated lectures.

Following the luncheon Mr. Hugh M. Newman, Managing Director of the Chicago Academy of Fine Arts, conducted another one of his interesting tours of the educational exhibits, and James Michos, Manager of the Deshler-Wallick Hotel, conducted a tour through some of the more interesting suites and departments of the hotel.

XVII. THE FORTIETH ANNIVERSARY PARTY

WILLIAM H. VOGEL, *Toastmaster**Director of Art Education, Cincinnati*

This program was in charge of Miss Elizabeth Abernathy, *Chairman*, Head of the Art Department in the Indianola School of Columbus, with Roberta A. Barlow, Head of the Art Department in the East High School of Columbus, and Miss Clara A. Gottschalk, Assistant Supervisor of Art in the Columbus Public Schools.

The Annual Dinner this year took on special significance because it was the Fortieth Anniversary of the Association. An attempt was made to include all living Past Presidents at the speakers' table.

Just as the dinner was being served, however, the orchestra went sour and there was a great commotion at the entrance to the banquet hall, where, as a blare of trumpets burst forth, His Excellency, FUJIYAMA HIROSHIGE PAJYAMA, Court Artist to His Majesty, the Emperor of Japan, entered with someone who, to all appearances was a Commodore in full "regimentals." It was difficult to determine from Fujiyama's name and attire whether he was Japanese or Chinese. After much argument and gesturing, the royal artist finally seated the Commodore on a raised platform in view of the entire audience and in exactly one hour painted a formal portrait of the Commodore in oils. At the close of this wonderful demonstration it was learned that FUJIYAMA HIROSHIGE PAJYAMA, who had been mentioned repeatedly in pre-convention *Bulletins*, was Professor Guy Brown Wiser, eminent portrait painter, and that the Commodore was none other than Waldo Wright of the SHIP organization.

Mr. Vogel first presented the Governor of Ohio, the Honorable George White, who spoke briefly. Mr. Vogel next presented two former Presidents of the EASTERN ARTS ASSOCIATION, Mr. William E. Roberts of Cleveland, and Mr. C. Valentine Kirby of Harrisburg. Two Commodores (former Captains) of the SHIP were next presented. These were Waldo Wright and Ralph Newing, both of Scranton, Pa. Major Burton A. Adams, Secretary of the EASTERN ARTS ASSOCIATION, was then presented, and responded with a word of greeting from his Association, stating that he was in favor of a joint meeting of the two associations. "Because of geographical difficulties," said Major Adams. "such a meeting is impossible at present, but as an official representative of the EASTERN ARTS ASSOCIATION I am here to express to you our feeling of comradeship and our appreciation of what you have done and the help that we have received from you in many ways in the years that we have both been working toward the same goal."

Mr. Wood then presented all former Presidents of the Association who were able to be present.

PRESENTATION OF THE GUESTS OF HONOR

HARRY E. WOOD

Secretary, WESTERN ARTS ASSOCIATION

Mr. Charles A. Bennett (1908)

President, The Manual Arts Press, Peoria, Illinois

Dean Robert W. Selvidge (1914)

University of Missouri

Mr. Harry E. Wood (1920)

Director of Vocational and Practical Arts Education

Indianapolis, Indiana

Miss H. Estelle Hayden (1923)

Director of Art, Des Moines, Iowa

Mr. William H. Vogel (1924)

Director of Art, Cincinnati, Ohio

Miss Harriet M. Cantrall (1926)

Director of Art, Springfield, Illinois

Mr. Elmer W. Christy (1927)

Director of Industrial Arts, Cincinnati, Ohio

Professor George S. Dutch (1928)

Chairman, Department of Fine Arts

George Peabody College for Teachers, Nashville, Tennessee

Mr. J. H. McCloskey (1930)

Director of Technical Work, Lakewood, Ohio

Miss Lillian Weyl (1931)

Director of Art, Kansas City, Missouri

Miss Belle C. Scofield (1932)

Supervisor of Art, Indianapolis, Indiana

Mr. Wood next read excerpts from letters received from former Presidents who found it impossible to be present. Carl Werntz (1909), President of the Chicago Academy of Fine Arts, wrote from Egypt, as follows:

The Primacy of the Arts is truly the exact slogan for this of all years—for the history of what we are is everywhere recorded by man in man's Art—and in, practically, nothing else.

Only the other day, I heard the Head Keeper of Cairo's great Museum saying: "Nobody has found any ancient Egyptian money—plenty of art in gold and precious stones—but no coins." And in this same rich Museum are unbelievable ancient portrayals of artisans and sculptors captioned 'Se' Ankh' which in translation becomes "*He who makes alive*." There, too, one finds a head skillfully drawn in lamp black upon a fragment of stone, 5,000 years ago by an artist king. This sketching on the fragments of fine white limestone seems to have been a popular practice. Fancy a Sketch Book consisting of a bullock cart load of stones!!!

In these unfolding economic times, the archeologists are apparently busier than ever and nearly every treasured object classifies as Art—the only thing Man of all ages loved sufficiently universally to consider worth keeping.

Dr. Breasted, founder of the Oriental Institute out at Chicago University, has established another artistic Chicago House in Memphis—the five thousand year old necropolis of ancient Egypt, from where the Sakkara Expedition has just begun to study ancient archeological finds from the standpoint of Art—their atmosphere, feeling, temperament—gathering facts about schools, methods, color chemistry, technique. This is a totally unique approach, entirely divorced from digging and exploration, by which it is hoped to discover not only the heart of ancient Egypt and her peoples but of ourselves.

Already, they have found the cartouche of a King proudly inscribed as the architect of his own marvelous tomb. Again, the signatures of artist decorators, and in one place, the beautifully sculptured relief of an artist drawing at—of all things—an adjustable easel!!

We have traveled more than 100,000 miles and walked in Galleries (as all the rest of you have) at least a million, million miles exploring and enjoying art of all peoples and periods. Museums everywhere, in stifling Sumatra, frigid Cuzco, lofty LaPaz, primitive Yucatan, wet London, sunny Venice, gray Paris, marble Athens—everywhere show Art to be, as I have said, the only form of expression human beings have loved enough to save.

The colossal caves of Ellora and Ajanta far away in sweltering, agitated India, are just like thousands of other caves except that, in them, little men intrigued by lines and colors laborously wrought harmony and beauty.

Even American customs' Inspectors, we "read in the papers," have gone in for collecting art in the form of large photographs of the Michael Angelo decorations in the Vatican.

Today Millicent Werntz and I are sailing from Port Said, bound for New Caledonia, New Guinea, the New Hebrides, and other "never, never lands." We send the distinguished members joyous greetings and sincere praise, for we are sure, wherever we may roam, that we shall see in many forms and manners more, and yet more, evidence of the undoubted and wholesome living Primacy of the Arts.

PRIMACY: A CRITICAL VIEW

WILLIAM E. WARNER

President, WESTERN ARTS ASSOCIATION

Several ways of developing this President's address were considered in its planning. An anniversary convention would seem to require considerable reference to the history of the Association. On the other hand, and for this same reason, there would seem to be a need for a philo-

sophical treatment in terms of futures. Neither of these plans has been followed, although both have suggested the treatment which has been adopted. This concerns a contemporary view or appraisal of ourselves in the present professional emergency, all seen as if through the eyes of a young college graduate on the threshold of an assumed career in Art or Industrial Arts of Home Economics.

The examples which constitute the bulk of this address have been drawn both from what this young person has seen in his career as a conscientious student coupled with what he has just seen in a trip across the country, made for the purpose of learning still more about his profession.

Are the various Arts *fundamental* or *primary* in American public education? Reference is made here not only to Art as such, but to Industrial Arts, Homemaking, Music, Commercial Arts, Agricultural Arts, and the like. The answer is seen in the fact that these things represent the material sides of life. The cultures of all civilizations are *material* cultures which are described by such subject designations as these. It is hard to believe that there is anything more fundamental to American civilization in 1933 than what is contributed by the representations of agriculture, industry, the home, and the "patterns" which make for the aesthetic and their enrichment and duration in society. Drawing as such, reading as such, writing as such, figuring as such, spelling as such, are but abstract processes devoid in themselves of content contributions and consequently "secondary" to the more "primary" functions listed under the generic term, "Practical Arts." All this is seen by the student of his profession as he travels about and as he looks with an eager yet questioning eye at the profession he is about to enter. He is struck by the fact that too many of the people he meets have not thought on such points.

When the student comes to a WESTERN ARTS ASSOCIATION Convention like the one this year, he is immediately impressed by the confusion of 5,000 mounts of various Art subjects seen in the headquarters hotel corridors and is struck by the fact that he may be seeing "the trees instead of the woods." He wonders what story they have to tell and is particularly concerned over their significance for public education. Are some better than others? If so, in what terms or upon what basis may they be judged? The answer to many of his questions on this point came from Hugh M. Newman of Chicago, who was kind enough this year to express his pragmatic views on Art in connection with conducted tours of the educational exhibits.

As the young student meets maturer people in his profession, he is further impressed by the fact that many do not qualify scholastically as well as he does for the positions they hold. If scholarship and degrees, as well as abilities in research, writing, and speaking, are valid criteria for one to follow in developing in a profession, then he is more strongly

impressed than ever with the idea that many could not now qualify for the jobs they hold. He is forced to conclude that it is because of such points as this that his profession today is endangered.

When is a thing good, or "valid," as his professors have expressed it? The young person sees tests being given and scored by teachers who are intent upon seeing whether youngsters average 85 or 86, or excel with 98 or 99, or pass with 69 or 70. Just what significance attaches itself to a test score, anyway? And just what can the various elements on a test tell one of significant points in the pupil's growth?

Another question concerns the meaning and use of the term "aesthetics" in the various Arts subjects. Its meaning takes on added significance from the angle of the practical as soon as teachers and pupils attempt its application in home life and in many material media. Glass, clay, wood, metals, and other materials become splendid vehicles for Art just as well as paper or canvas. If the aesthetic means anything, it would seem that applications should be made equally well in all such media and in certain environments like the home, the school, the church, as well as in dress, decoration, and the like.

This young student about whom I have been speaking ran into one school where courses in Art appreciation were taught in a way very odd to him. He was astounded by the fact that the bulk of the course was taken up with slides showing examples of the old masters and was forced to leave the lecture room in a daze with this question in his mind: "Is Art appreciation something which should be confined to the old masters?" Surely, if Art is to be universal and primary and necessary in the lives of all people, it should be something more than than seen in historic paintings.

A visit to Washington reveals a government backing a plan for a more equitable wage and a shorter working week. The figure of forty hours per week is given, and many predict that shortly we shall have a thirty-hour week. He is immediately impressed with the problem everyone will have to face concerning what to do with his leisure and sees with many others the opportunity placed on the doorstep of the various Arts for developing avocational interests along many types of the Arts among people of all ages, irrespective of sex or occupation. The development of adult education should be great, and the American public school should become a greater community center, than ever before during the hours of the evening as well as those of the day.

If this impressionable young person is an Industrial Arts student, he has heard a great deal about the Federal Board for Vocational Education, but finds, to his astonishment, in his travels about the country, that only one shop teacher in four is under a Federal subsidy. What is the difference between Vocational and Industrial Arts Education? Are they opposed to each other, or do supplement each other? He finds to his delight that the latter is the case and learns that there is universal

agreement on that point. But, he is confused when he comes into Washington over some of the things he sees concerning this point. The National Survey on Secondary Education astonishes him, as do the lack of publications on his subject in the U. S. Office of Education and he is further struck by the number or lack of individuals representing the various Arts subjects in government offices.

He runs into a surprising incident on the West Coast, where a supervisor of Art indicates that she no longer dares mention technique because of the creative "bug" now flying rampant in the ranks of Art teachers in her city. And the student, if he is an Industrial Arts specialist, reflects on what would happen in a school shop if an inexperienced youngster were turned loose on a buzz-saw and told to be creative. Just where is the place for, and what is the significance of, experience and technique in the various Arts? But it took a private school in the East to totally nonplus this impressionable young man.

He found to his utter amazement that ten-year-old boys and girls were painting from the nude in an "art" class and discovered another group of boys and girls, this time twelve years of age, being stimulated by their instructor to paint their moods. What reaction would come from parents in the typical community of the Middle West to such daring procedures as these, and is anything of this sort necessary or even of the slightest value? Should young children be taught to be whimsical, and are the intricacies of figure painting of any worth at all to the immature child? Surely, these experiences leave him confused.

Another example common to all sections of the United States finally strikes him as very odd indeed, because of its universal acceptance. This concerns drawing, or more specifically, *mechanical* drawing, as it is called. From what little he understands about engineering, this young college student concludes that the drawing teachers of the country assume they must be training prospective *engineers* instead of *consumers of drawing* and is delighted by the fact that he sees great opportunity for improving drawing by taking out the adjective "mechanical" and applying sociological techniques to the refinement of content in this subject.

A contact with one Art leader was interesting because of the advice that, "You must not try to analyze Art." But, this is the very thing that this student has been doing, particularly in his professional courses, and he hears that it constitutes the very essence of graduate work. Why shouldn't one analyze Art? And if he follows this advice, where is the opportunity for improving his profession? He was delighted, therefore, to come to this particular convention and hear the addresses by Professor Varnum and Professor Stone on leadership.

A point, however, which disgruntles him no little, is the fact that so many of the Arts teachers refer to themselves as *extra* or *special* subject teachers. If these Arts are to be considered as *primary* phases

of life and as necessary to life, surely it is incongruous, to say the least, for the teachers themselves ever again to refer to their work as something *special* or *extra*. Think of the psychological effect on one's constituency, particularly in times of economic stress, ever to be thought of as an "extra."

What does integration mean in this connection if the various subjects as Practical Arts are not at the bottom or *core* of the entire elementary- and secondary-school curriculum structure? The answer to many of his worries, however, is seen all too frequently in schools where the various Art, Industrial Arts, and Homemaking teachers see and practice their work largely from the angle of technical proficiency. Such work was described in the old days as sketching, cooking, stitching, sewing, joint making, and the like. But, are the Arts to be thought of in such a non-social and such technical fashion? Surely there is greater social and economic significance in these subjects than is described by these old terms and by the work of the technical teacher, irrespective of his field of Art work. The young student early concludes that it is not enough to be just a technical specialist in textiles or woodworking or pottery or painting or foods. It is in their life interpretations, applications, and appreciations that a suggestion for a greater usefulness of the various Arts subjects is to be found.

From the side of terminological usage the young student is surprised by many misuses. Where is the accent in such a word as *research*, and how does one pronounce and use such terms as *data*, *criteria*, *medium*, *quartile*, *interest*, *impulse*, *test*, *element*, *impression*, *attitude*, *stimulus*, and the like? The student finds, to his astonishment, that some of the older people whom he has learned to respect in the profession do not and apparently cannot make sharp distinctions in such terms although he has learned to use them correctly.

Many impressions are gained from observing the physical or structural development of school shops, laboratories, and studios. The student has learned to gauge physical plans from many angles, including lighting, size, shape, location, noise, auxiliary facilities, building details, and the like, and is impressed by the fact that great progress can be made in this direction.

An enumeration of observations like these could be extended almost without end. They have been presented informally by your youngest President because he felt it would be presumption for him to feel that he could make a more formal address to such a distinguished audience. The joker, however, comes in the technique of objective analysis applied to the remarks just given, and one might be suspicious that a homely, and we hope progressive, philosophy made the analysis possible. But, to be brief, it might be of interest, in closing, to summarize this whole idea of the various Arts being *functional* and *primary* and *necessary* to education and life by quoting Bonser's famous *Art*

Creed. It largely summarizes the faith held by this young student of the various Arts, now standing on the threshold of his career, as he looks about him through eyes which have been sharpened by such a philosophy as that classic which was left for the professor by Bonser. It is as follows:

I believe: That life itself is the finest of all arts and that its richest realization is art's supreme excuse for being.

That human life is the progressive evolution of the spiritual nature of God and that the measure of growth in the appreciation of the beautiful in the conduct of life is also a measure of the true and the good in man's character.

That *the mission of art* is to teach a love of beautiful *clothes*, beautiful *households*, beautiful *utensils*, beautiful *surroundings*, and all to the end that life itself may be rich and full of beauty in its harmony, its purposes, and its ideals.

That the spirit of art lifts the artisan from the plane of the animal laboring to provide itself with creature comforts, to the plane of man working to the end that he may thereby most fully and deeply live the spiritual life of human idealism.

That the spirit of art is to lighten the labor of the artisan while at work, no less than to ennoble his leisure by the uplifting influence of its appropriate use.

That the materials of industry—paper and woods and metals and clay and fibers—must be regarded as but media for the expression of life problems with beauty of form and color as an inseparable element in its resolution.

That the appreciation of beauty in the thousand common things of daily life will result in the final appreciation of beauty as a dissociated ideal.

That nothing in man's life is too trivial to be made more worth by being done in the spirit and with the perfection of the art ideal.

That art appreciation and art values in human life, grow most consistently and most toward life control by the exaltation of the element of beauty in all things—the pursuit of life's common needs and the conduct of man's daily intercourse, no less than in the abstracted idealizations of these relationships of man to man, and man to God conceived and produced by the imagination of artistic genius.

That all progress in art lies in the expression of the experiences, the hopes, the ideals, and the aspirations of our own environment, of our own times, and of our own lives. The past is studied to refine and stimulate creative effort for the expression of the life of the present, not to become a substitute for it.

That *children have an inalienable right* to the inspiration and uplift of those rare spirits whose creative genius has given us the *masterpieces of art in all its forms*.

That the effective teacher of art must be a large personality, a great soul, characterized by simplicity, sincerity, love of child life, faith in the eternal hopefulness of life, deeply conscious of human meanings and relationships, sympathetically responsive to nature, and passionately devoted to an idealism that gives beauty its only justification when it is unified with goodness and truth.

Surely this treatment of a President's address, while possibly uncommon, may be considered significant for these times and even possessed of suggestions for the future because of its objective character. And, were I the student, its demonstration of the soundest, yet most

subtle, of techniques of evaluation, namely the *professional criterion* approach of determining and judging what we do in education would be most impressive. It is only by such measures that *Primacy* can be claimed and brought into reality.

SHIPOCRACY: A SALTY VIEW

WALDO WRIGHT

Commodore, the SHIP Organization

Mr. Wright presented his extraordinarily funny address, which kept everyone doubled up and caused many to fall into the aisles.

PRESENTATION

RALPH L. NEWING

Commodore, The Ship Organization

Vice-President, NATIONAL VOCATIONAL GUIDANCE ASSOCIATION

Many of you know that, in connection with the SHIP, we not only have officers and members of the crew on board, but others as well, such as Pirates, for example. We have two Pirates here at the speakers' table tonight. Harry Wood is our Pirate for the WESTERN ARTS, and Burton Adams for the EASTERN ARTS.

According to the SHIP'S constitution we are able to add one First-Class Passenger a year. We have never elected any ladies. We have elected a number of men. It has been quite a number of years since anyone from the WESTERN ARTS ASSOCIATION has boarded our ship as a First-Class Passenger. Since we are taking one on here at this meeting, all the other meetings this year where we put into port, from the Atlantic to the Pacific, will have to forego this privilege. We are not obliged to choose a First-Class Passenger every year, but we intend to do so tonight. The man that we would like to honor has been in the thick of the work of the WESTERN ARTS ASSOCIATION for the past twelve months. He is quite familiar with all the other events that are taking place at this convention, but one thing is going to happen that he doesn't know anything about.

The SHIP at its recent meeting considered this matter, after having put it through the hopper, so to speak, and in voting on the question of bringing in a new First-Class Passenger, unanimously elected this particular individual.

Dr. Warner, when the WESTERN ARTS ASSOCIATION elected you as President last year, they conferred an honor upon you, an honor which would have been quite empty if you had not discharged your responsibilities as well as you have.

The members of the SHIP recognize the splendid work you have done. Some may not have appreciated this fact until they came to the convention. We think of Dr. Warner as being equally interested, not only in Industrial Arts, but in the related groups of Homemaking and Fine Arts as well. We are very happy to take this occasion to state our attitude, not only because of his service to these various fields in general, but towards the interest that he has taken in the WESTERN ARTS ASSOCIATION in particular.

Ships throughout the ages have carried their wares and education from one people to another. The very word implies deep faithfulness, tried loyalty, firm friendship. In behalf of Earle Opie, who is Deck Officer for the WESTERN ARTS ASSOCIATION, and for the officers and crew who are present, I now take pleasure in bringing Dr. Warner on board our SHIP as a First-Class Passenger. Dr. Warner, in welcoming you, I hope that your voyage through this sea of education will always be a very happy one.

DR. WARNER: Thank you very much.

XVIII. THE ARTS FRATERNITY BANQUET

FRANK C. MOORE, *Toastmaster*

Board of Education, Cleveland

This new feature of the Association was planned by Mr. C. Ralph Fletcher and was presented at the University Club on Friday evening, May 5. Miss Mary White, daughter of Governor White, was the guest of honor. Dr. William E. Warner spoke briefly on the topic, "Dangers of Fraternal Racketeering."

The various national honorary Arts fraternities listed hereafter were officially represented by the persons whose names are marked with an asterisk.

DELTA PHI DELTA, *National Honorary Professional Art Fraternity*. Delta Phi Delta, founded at the University of Kansas in 1909, is open to men and women students of Art in American educational institutions. Exceptional abilities in Art and high academic standing are basic requisites for membership. The ideals are to develop the ability to see and to appreciate as well as to live the beautiful, and to help in the promotion of a true American Art.

*LILLIAN V. STEWART, Grand President

BLAINE BATTEY, First Grand Vice-President

KATHERINE MULLIN, Second Grand Vice-President

R. M. DARST, Grand Secretary

MARGARET MATTSON, Grand Treasurer.

MARGARET WHITTEMORE, Editor, *The Palette*

EPSILON PI TAU, *National Honorary-Professional Fraternity in Industrial Arts and Vocational-Industrial Education*. Founded at the

Ohio State University in 1929, this Fraternity now is represented from coast to coast in nine educational institutions offering curricula leading to degrees in the above-stated fields. The ideals of Epsilon Pi Tau are to recognize the place of Skill, to promote Social Efficiency, and to foster, counsel, reward, publish, and circulate the results of Research effort in the fields of its interest.

NATIONAL POLICIES BOARD

WILLIAM E. WARNER, Executive Secretary, Editor, *Epsilon Pi Tau Review*.

ELROY W. BOLLINGER

EDWIN A. LEE

*ORVILLE E. SINK

HOMER J. SMITH

OMICRON NU, *Home Economics Honor Society*. Alpha Chapter of Omicron Nu was organized in 1912 at Michigan State Agricultural College as an honor society in the Department of Home Economics. There are now twenty-six chapters and three alumnae chapters in various educational institutions throughout the United States. The aims of the Society are to promote Scholarship, Leadership, and Research in the field of Home Economics.

ALICE BIESTER, President

FLORENCE HARRISON, Vice-President

MATE L. GIDDINGS, Secretary

ELLA J. DAY, Treasurer

FLORENCE B. SMITH, Editor, *Omicron Nu*

*ANNABELLE WINTER, President, Omega Chapter

TAU SIGMA DELTA, *National Honorary Fraternity in Architecture and Allied Arts*. Alpha Chapter was organized in 1913 at the University of Michigan. Since then, thirteen chapters have been installed at schools and colleges offering curricula leading to degrees in Architecture and its Allied Arts. The University of Liverpool, England, holds a charter for the only chapter outside the United States. Membership exemplifies outstanding scholastic abilities and high moral character.

PHILLIP H. ELWOOD, Grand Chapter Master

*WILBERT C. RONAN, Grand Chapter Scribe

ERNEST H. TRYSELL, Grand Chapter Recorder

PHI UPSILON OMICRON, *National Honorary Professional Fraternity in Home Economics*. Eighteen chapters are organized to foster qualities of leadership, to develop intelligent citizenship and to join the efforts of women of allied interests. The Fraternity sponsors a program of professional activities among the chapters, cooperates with the American Home Economics Association, and has contributed substantially to the development of the Home Economics Department of Ewha College, Seoul, Korea, and in Lignan University, Canton, China.

VERNA HITCHCOCK, National President
 *DORIS M. RISLEY, National Vice-President
 MARTHA MAGRAW, National Secretary
 ELIZABETH SHIREY, National Treasurer
 HARRIET G. COOKE, Editor, *Candle*
 Custodian, Business Manager, and Five National Councillors

IOTA LAMBDA SIGMA, *National Honorary Professional Fraternity in Vocational Education*. Organized at Pennsylvania State Teachers College, Iota Lambda Sigma now has seven chapters. In addition to Alpha in Pennsylvania there are chapters in Tennessee, Carolina, Ohio, Alabama, Oklahoma, and Colorado. Its purposes are to promote Industrial Education through teacher training and to make possible a closer cooperation among teachers, directors, and supervisors who continue in professional study.

CHARLES BRILES, Grand President
 GEORGE H. RESIDES, Grand Secretary-Treasurer
 *RUSSELL J. GREENLY, Chapter Sponsor

XIX. THE GOVERNOR'S RECEPTION AND TEA

This beautiful occasion was planned by Mrs. Ella Langenberg Bolander as Chairman and was held at the Governor's Mansion on East Broad Street in Columbus, where Miss Mary White was Hostess.

Mrs. Bolander was assisted at this reception and in the various other social programs of the convention by the following hostesses:

MRS. ARTHUR E. BAGGS	MRS. GERALD GORDON PUGH
MRS. EDWIN R. BROOKS	MRS. GEORGE W. RIGHTMIRE
MRS. J. G. COLLICOTT	MISS ALICE ROBINSON
MRS. SCHUYLER DOBSON	MRS. ROBERT E. SMITH
MRS. GEORGE S. DUTCH	MRS. WILLIAM H. STONE
MRS. GEORGE FARNHAM	MRS. KATHERINE B. USRY
MRS. ERWIN FREY	MRS. WILLIAM E. WARNER
MISS STELLA HAYDEN	MRS. SIEGFRIED WENG
MRS. ARTHUR JOHNSON, JR.	MRS. GUY BROWN WISER
MRS. CHARLES KITCHELL	MRS. HARRY E. WOOD
MRS. C. W. KNOUFF	MRS. LOWELL WRIGHT
MRS. EARLE F. OPIE	MRS. WALDO WRIGHT

APPENDICES

A. PRESIDENT'S REPORT

Our first move was to take a 7,000-mile trip across the United States, partly for the purpose of seeking counsel with older and wiser heads in connection with the development of a truly noteworthy program. The plan worked out something like this: An exhaustive study of *professional needs* was made during May, June, and July; a *topical plan* of programs was developed in August; a nation-wide *search* for *outstanding names* to carry out the plan was made in September, October, and November; culminating in a printed announcement of the complete program early in December, five months before the convention. Then followed a program of promotion in all sections of the United States, which may be best understood by the fact that some 19,500 copies of the program were distributed between December 1 and May 1 and some 1,500 letters written from the President's office.

The membership curve in the WESTERN ARTS ASSOCIATION began to go up immediately following the 1933 convention, after it had been declining for entirely too many months. This is a hopeful sign, and may be interpreted as professional backing for the efforts expended by the many persons involved in the success of the Columbus convention. Mr. Wood reported only a small response to his membership invitation of September, 1932, but in the June, 1933, drive, over eighty persons sent in dues. The big scare of the year was the nation-wide closing of all banks two months before the convention. Neither the PACIFIC ARTS ASSOCIATION nor the SOUTHEASTERN ART ASSOCIATION even attempted conventions. These facts caused our group to increase its efforts for a successful meeting.

The Anniversary character of the convention gave it peculiar interest. A letter from William H. Vogel, Director of Art for the Cincinnati schools, and Historian of the Association, contains the following brief statement concerning the origin of the Association. It is quoted here for the record.

The Columbia Exposition at Chicago in the summer of 1893 made that city the Mecca for educators and art lovers from all over the world. Aroused to an appreciation of the educational values of school exhibits, a number of art educators gathered together at the Chicago Manual Training School on August 10th for the purpose of forming a temporary organization of mutually interested persons. Mr. L. L. Summers, then of Milwaukee, was chosen to act as chairman.

It was decided to name the new organization the WESTERN DRAWING TEACHERS ASSOCIATION and the honor of first President was accorded to Miss Ada M. Laughlin. The city selected for the first convention was Milwaukee. There, in the following May, in the State Normal School Building, was convened the first regular meeting. The Association has met each year since then with the exception of 1918 during the World War.

On the tenth anniversary of the Association, Milwaukee again entertained the convention. During the first decade of its existence, the forces of the Association were augmented by the addition to its ranks of a 'Manual Training' Department. In recognition of this fact, it was voted to adopt the name WESTERN DRAWING AND MANUAL TRAINING TEACHERS ASSOCIATION.

New modes of procedure were adopted in the following years, with the expansion of the Association. The administration was conducted through committees until the year 1912. In that year it was decided to adopt the Council form of administration, the membership to consist of past presidents because of their intimate experience in the affairs of the Association.

With the expansion and inclusion in the school curriculum of various new forms of art activities, representatives of these branches entered the ranks of the Association. This broadening of the membership again necessitated a change of name, and in 1919, the present name of WESTERN ARTS ASSOCIATION was adopted.

This Association has been able to attain its high rank and accomplishment because of the outstanding ability of its members, many of whom are nationally known. Among those who have left a lasting impress upon the organization are Mrs. M. E. Riley, for many years Art Supervisor of St. Louis, Miss Bonnie Snow of Minneapolis and Miss Wilhemina Seegmiller of Indianapolis, who attended the annual conventions regularly, bringing with them large delegations of teachers and art exhibits which were the marvel of their time. Their progressive spirit had a strong influence in shaping the policies of the Association. Special recognition is due the late Mr. L. R. Abbott of Grand Rapids, Michigan, who was an efficient secretary-treasurer of the Association for many years.

The year 1922 saw the 'Ship' come into our port at St. Louis and its loyal crew always have stood ready to lend a helping hand and join their forces to help attain the ultimate goals of the Association. One of the noteworthy accomplishments of the Association occurred in 1924 when a resolution was adopted which led to the organization of the FEDERAL COUNCIL ON ART EDUCATION. Strength in a common cause was thus attained by the united effort of many affiliated organizations.

A conscientious attempt was made through the entire year to keep in close contact with all persons interested in the welfare of the Association. The most interesting study made was that of the administrative functions of the Association, which involved a 25-point analysis mailed to the Council and certain former Presidents about Christmas time. A very interesting and instructive response was gained, which, by and large, governed the administrative policies placed in action during the remainder of the year. Your President was indeed grateful for these responses and others which came in from many sides.

Many problems confront the Association's future development. Not the least of these is the study of the constitution. This is now under way. Suggestions for its improvement which will reflect significant policies for the future will be more than gratefully received. Correspondence is invited on this point. The question of public and professional relations seems to be growing in importance for an association like the WESTERN ARTS. Contacts this year were made with several high public officials for this reason. One of the most interesting and revealing contacts was with United States Commissioner of Education William John Cooper, over the question of the representation of Art, Industrial Arts, and Homemaking, not only in his office, but in the

publications of the National Survey on Secondary Education. More is said on this point in other sections of the *Proceedings*.

The reunion and social aspect of the Columbus convention program was studied with considerable interest, because it is appreciated that many members come to the convention particularly for this phase of its program. A related development concerns the national honorary Arts fraternities, six of which were drawn into the fold of the Association this year with considerable success. Much can be done for the various professions represented through the efforts of these fraternities because of their wealth, influence, and fine standing.

Another point for the future would seem to lie in a study of the publications of the Association. Many are not sure what direction these should take. Their production involves considerable amounts of professional effort and monetary investment. One wonders how well these function, and particularly if there is not further room for improvement. This raises the whole question of Budgetary Planning.

Many have been surprised at the extent of the program planned this year, particularly when it was learned that the whole thing was developed on a budget of but one thousand dollars. The technique is explained elsewhere in these pages, but of particular significance is the fact that all programs were built on the *symposium* idea, where opening speakers were orientation speakers, and after applications had been made, the closers were summarizers. It would seem well to provide more time for discussions, and the panel idea has been suggested for later conventions. Our own thought is that a combination panel-symposium type program would be superior to either type used alone. It is doubtful if the Arts groups are ready for a convention planned entirely around the panel idea.

The President's office would particularly like to list the many names of persons who cooperated in helping us make the Columbus convention a success. We wish to thank all of those whose names appear in one connection or another in this *Proceedings*. We are particularly grateful to Mr. Bolander, Chairman of the Columbus Advisory Committee, for making many of the arrangements and advising in the construction of the entire program, as well as to Mr. Hutchinson for his splendid work in connection with the 5,000 mounts of educational exhibits hung during four days prior to the opening of the convention, and to Professor Osburn, who has materially contributed to the success of this *Proceedings* number by assisting in its editing.

The Association has many friends, all of whom we are sure will join us in giving every support to the new officers. We are confident that Mr. Pelikan, Mr. Moore, Mr. Wood, and Miss Baker, with the able assistance of the Council, will truly point the way for an eminently successful Association in the years to come.

B. SECRETARY'S REPORT

The secretary's report is always about the same. He has kept the association records, carried on the necessary correspondence, solicited advertising for the bulletins, sold space for exhibits at the convention and has kept the minutes and records of the council. He has also served as chairman of the Editorial Board and as treasurer of the association.

C. TREASURER'S REPORT

The treasurer's report shows the effect of a reduced membership, reduced amount of advertising space and reduced income from commercial exhibits because of reduced charges. It also shows that it was impossible for the association to meet expenses on some of the budgets set up last year. These two elements combined have caused the association to draw on its reserve fund to the extent of \$500.00 and the reducing of assets of the association \$1,857.50 over that of last year.

For the Fiscal Year September 1, 1932, to September 1, 1933

Receipts

535 Memberships	\$ 535.00
Bulletin Subscriptions	535.00
38 Student Memberships	38.00
Advertising	482.50
Sale of Reports	28.00
Sale of Membership Lists	21.00
Material and Equipment Exhibits	1,410.00
Miscellaneous	* 786.24
	<hr/>
	\$3,835.74
Balance in bank September 1, 1932	1,824.30
	<hr/>
	\$5,660.04

\$173.00 Entered under miscellaneous covers re-deposited checks on closed banks, charged out under miscellaneous disbursements on account of checks returned because of bank holiday.
 \$500.00 Entered under miscellaneous covers deposits transferred from savings account.

Disbursements

Program	\$1,007.64	
Secretary's Office	357.33	
President's Office	117.24	
Editorial Board	274.88	
Exhibit Committee	86.53	
Publications	1,940.78	
Membership Promotion	105.84	
Council	51.48	
Secretary's Salary	500.00	
Convention	456.35	
Miscellaneous	391.92	
	<hr/>	
	\$5,289.99	
Balance in bank September 1, 1933	424.47	
	<hr/>	
	\$5,714.46	
Checks 190-191-192-194-195 not cleared through bank September 1, 1933.	54.42	
	<hr/>	
	\$5,660.04	
* \$173.00 of this amount covers checks deposited but charged to our account during bank holiday. New checks have been entered under receipts miscellaneous.		
Funds at interest Sept. 1, 1932	\$1,500.00	
Withdrawals for transfer to checking account up to June 3, 1933	500.00	
	<hr/>	
Balance on savings account June 3, 1933	\$1,000.00	
Interest added since June 3, 1933	5.00	
Balance by Saving Account Book	<hr/>	
September 1, 1933	\$1,005.00	\$1,005.00
Balance by Checking Account Sept. 1, 1933	424.47	
Checks 190-191-192-194-195 not cleared	54.42	
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Actual Balance September 1, 1933	\$ 370.05	\$ 370.05
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Accounts collectable September 1, 1933		
Interest on savings account	\$ 10.00	
Advertising	65.00	
Refund Columbus Convention Account	16.75	
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	\$ 91.75	\$ 91.75
Total Assets September 1, 1933		\$1,466.80

D. EDITORIAL BOARD

The Chairman of the Editorial Board, Mr. Harry E. Wood, called attention to the change in the character of the *Bulletins* published during the year. He also stated that the Council, because of reduced finances, had authorized an issue of four *Bulletins* annually instead of six, beginning with the next volume.

E. REPORT OF THE COUNCIL

The Chairman of the Council, George S. Dutch, reports as follows:

Your Council had difficulty in squeezing its necessary sessions into the rich and full Columbus program. However, through the fine cooperation of members and proxies, it was possible to meet on nine separate occasions for a total of over eleven hours. All regular members of the Council were in attendance with the exception of Miss Lucy S. Silke. Miss Bess Eleanor Foster, Mr. Elmer W. Christie, Mr. George C. Donson, and Mr. Hugh M. Newman served as proxies at various meetings.

The Secretary's usual detailed analysis of the affairs of the Association together with a comprehensive President's report made it possible to focus attention upon important items requiring the deliberation of the Council. One major item was the question of revision of the Constitution and By-Laws. A committee of three was appointed to study this problem and to report to a mid-winter meeting of the Council for its consideration and approval in order that recommended changes may be published in the January Bulletin. Another important matter was the adoption of a schedule for the editing, printing, and mailing of four Bulletins, instead of six issues as in the past. This action and other financial adjustments made it possible to present a balanced budget for the coming year. With an expected increase in membership the work of the Association should go forward on a sound financial basis.

In completing my term of office I wish to express my appreciation of the generous and devoted service of the members of the Council who so untiringly gave their best to the well-being of the Association.

Briefed minutes of the Council meetings follow:

May 3rd. Called to order—9:30 A. M.; adjourned—10:15 A. M.

After a review of items to be considered as presented in detailed reports of the Secretary and the President a discussion of the relative importance of each item was held and a program of procedure was outlined for further Council meetings.

May 3rd. Called to order—12:05 P. M.; adjourned—1:05 P. M.

Discussion on the advisability of a revision of the Constitution and By-Laws was followed by a vote to appoint a committee of three to study the problem and to report to the Council through the Secretary not later than December 15th so that the Council can have time to approve and publish the recommended changes in the January Bulletin, thus enabling the member-

ship to vote on the changes at the next annual meeting. It was voted that, if feasible, a mid-winter Council meeting be called at some central point to discuss the report on the revision of the Constitution and By-Laws.

May 4th. Called to order—7:45 A. M.; adjourned—9:25 A. M.

Audience was given a committee from Detroit presenting an invitation to the WESTERN ARTS ASSOCIATION to hold its 1934 convention in that city. Miss Foster gave a brief report on the activities of the Federated Council on Art Education.

The committee on revision of the Constitution was appointed: Miss Weyl, chairman, Mr. Opie and Dr. Warner.

May 4th. Called to order—3:10 P. M.; adjourned—4:00 P. M.

Audience was given to representatives from Milwaukee and Indianapolis who extended invitations to the Association for its next convention.

May 5th. Called to order—7:20 A. M.; adjourned—9:10 A. M.

It was voted to accept the Detroit invitation for 1934 pending a satisfactory agreement with hotels and local committee regarding details. It was also decided to hold the 1934 convention not later than the first of April.

May 5th. Called to order—1:00 P. M.; adjourned—2:00 P. M.

The matter of editing the convention report was discussed and the Secretary, as Secretary also of the Editorial Board, was instructed to eliminate addresses presented through slides, charts, or exhibits, or addresses depending largely upon such material, but instead to prepare a statement giving credit to the speaker for his contribution with such comment as would be desirable.

May 5th. Called to order—4:30 P. M.; adjourned—6:05 P. M.

The matter of publications was discussed and it was voted to authorize the Secretary to make arrangements for mailing bulletins on the following new schedule:

No. 1, November 1st; No. 2, January 1st; No. 3, April 1st; No. 4, September 1st.

The motion included provision for securing a special mailing permit for any special bulletins or reports which might in the future be authorized by the Council.

An appropriation of \$30.00 was voted to cover the WESTERN ARTS ASSOCIATION's dues in the Federated Council on Art Education.

An appropriation of \$10.00 was voted to cover the WESTERN ARTS ASSOCIATION's dues in the American Federation of Arts.

An appropriation of \$50.00 was voted the Ship towards the Ship's "Get-Acquainted Party."

May 6th. Called to order—8:05 A. M.; adjourned—9:15 A. M.

Plans for a membership campaign were discussed but final organization was left to the incoming president.

Mr. E. E. Lowry was asked to continue as Chairman of the Student Membership Committee.

It was voted to establish a convention fee of 50c for the regular membership of State Art, Industrial Art, or Home Economic organizations who can show membership in such organizations at the time of registration; this convention fee to carry convention privileges only and not membership or Bulletins.

May 6th. Called to order—2:10 P. M.; adjourned—3:30 P. M.

The following budget was approved for 1933-1934:

RECEIPTS

Membership	\$1,500.00
Commercial Exhibits	1,500.00
Advertising	600.00
Student Membership	100.00
Sale of Reports	25.00
Sale of Membership Lists and Miscellaneous	75.00
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	\$3,800.00

DISBURSEMENTS

Program	\$ 800.00
Secretary's Office	350.00
President's Office	75.00
Editorial Board	200.00
Exhibit Committee	50.00
Publications	1,100.00
Membership Promotion	100.00
Advertising and Miscellaneous	100.00
Secretary's Salary	500.00
Convention	450.00
Council	75.00
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	\$3,800.00

F. PROGRAM

The Program Committee was composed of Karl S. Bolander (Art), Alice M. Donnelly (Home Economics), Mattie L. Jarrott (Art), and William E. Warner (Industrial Arts), as Chairman. Dr. Warner reported the participation of one hundred one persons in the program as section chairmen, speakers, and discussion leaders. All participants from Ohio contributed their services to the Association without cost. Only two honoraria were paid, and railroad fares only were paid on the rest, as far as was possible. A chart of the program may be seen elsewhere in the Appendix.

G. RESOLUTIONS

The President invited the following persons to prepare and present resolutions: Alfred G. Pelikan for Art, Adelaide L. Van Duzer for Home Economics, and Fred C. Whitcomb for Industrial Arts.

This committee presented the following report, which was approved unanimously at the Business Session on Friday evening, May 5.

WHEREAS, The Fortieth Annual Convention of the WESTERN ARTS ASSOCIATION, held in Columbus, Ohio, May 3 to 6, 1933, has been a most enjoyable and profitable one; therefore, be it

RESOLVED, That we, the Convention assembled, extend our hearty and enthusiastic gratitude to President Warner for his untiring efforts; to the committee, who so ably supported him; to Mr. Karl S. Bolander and his associates; to the Governor of Ohio and his daughter for honoring us with their presence at the banquet and for the reception and tea at the Governor's Mansion; to the Art, Industrial Arts, and Home Economics faculties of the Ohio State University; to the Art, Industrial Arts, and Home Economics supervisors and teachers of the Columbus public schools; to the Trustees of the Columbus Gallery of Fine Arts; to the Columbus Chamber of Commerce; to the members of the SHIP; and to all others who so materially contributed to the success of the convention.

WHEREAS, The NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES represents the organized interests of teachers in the United States; and

WHEREAS, That organization is waging a most effective campaign against all propaganda which would in any way cripple education or destroy well-rounded curricula now in effect in all progressive communities; therefore, be it

RESOLVED, That the WESTERN ARTS ASSOCIATION express appreciation to the officers of the NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES for their splendid work and assure them of our active cooperation and interest.

WHEREAS, The National Survey of Secondary Education in its 28-volume report does not include the treatment of such important subjects as Industrial Arts and Homemaking; and

WHEREAS, The report on Art is limited to twenty-three pages; therefore, be it

RESOLVED, That the WESTERN ARTS ASSOCIATION, now assembled in convention at Columbus, Ohio, register a protest against this seeming slight of these subjects in the monographs reporting the National Survey of Secondary Education conducted under the direction of the United States Office of Education, and that a copy of this resolution be forwarded to the United States Commissioner of Education in Washington with the suggestion that this situation be remedied.

(Signed) ALFRED G. PELIKAN, *Chairman*,
ADELAIDE L. VAN DUZER,
FRED C. WHITCOMB.

H. NOMINATIONS

A Nominating Committee consisting of Elmer W. Christy, Charles A. Bennett, and Bess Eleanor Foster was elected at the General Business Session on Thursday, May 4, and charged with nominating persons for the offices of President, Vice-President, Auditor, and Member of Council for the year 1933-1934.

The following persons were nominated by the Nominating Committee and elected unanimously at the business meeting on Friday evening, May 5:

President—Alfred G. Pelikan, Director, Milwaukee Art Institute, Director of Art, Milwaukee Public Schools.

Vice-President—Frank C. Moore, Supervisor of Industrial Arts, Cleveland Public Schools.

Auditor—Grace M. Baker, Head, Department of Art Education, State Teachers College, Greeley, Colorado.

Member of Council—Dr. William E. Warner, Department of Education, Ohio State University, Columbus.

I. FEDERATED COUNCIL ON ART EDUCATION

The following report was received from Royal Bailey Farnum, President of the FEDERATED COUNCIL ON ART EDUCATION:

The WESTERN ARTS ASSOCIATION should feel proud of itself and is to be congratulated for starting the ball rolling which brought about the organization of the FEDERATED COUNCIL. Its initial policy was to serve chiefly as a clearing house to make certain studies in fields which seemed to be needing such investigation.

The immediate results were a report on elementary Art Education, a report on Art Education in the colleges and universities, a report on terminology, and a considerable amount of work done by members of the Council on a report on Art Education in Art museums and on the work of Art schools, and the work of teacher training in Art. A start was also made in the field of high schools. For various reasons these reports were not developed. Mr. Boudreau, who originally had charge of the high school work, moved to Pratt Institute and then was advised to suspend activities pending the Social Trends Survey of President Hoover. Mr. Maclean, who had started the Art school study when he was at Indianapolis, moved to the Museum at Toledo and felt that he was no longer in a position to continue that study. Miss Helen Cleaves, President of the EASTERN ARTS ASSOCIATION, had in charge the report on training of Art teachers but received word that she might take her sabbatical year and so temporarily dropped that work. Later, a change of position made it difficult for her to continue. The Museum report was well advanced under Miss Florence Levy but it was found that the material received and handed in was largely a statement of what had already been printed in Museum bulletins and the Council was advised to refrain from putting out a duplication of what had already been done.

Two grants had been received from the Carnegie Corporation to help finance the work of the Council, this money to be used for travel, clerical expense, and the issuing of reports. It seemed advisable because of the small membership on the Council to try to have as large a meeting as possible. Under the circumstances, therefore, it seemed wise to bring one representative from the Far West. When one realizes, then, that the expenses of a single meeting of members of the Council runs around \$1,000, it will be readily understood that it was inadvisable to hold regular annual meetings unless matters of supreme importance were to be discussed. Under the by-laws of the Council, membership called for a fee of \$30 from each of the seven organizations making up the group. It was found almost immediately that \$30 was a considerable sum for the PACIFIC ARTS ASSOCIATION and for the Art museum directors to contribute. The depression of the last three years forced the question of finance to the forefront, but no attempt was made to bring about a permanent solution to the problem owing to the fact that there was still a sum left for the issuance of one report, although its character and nature were not fully determined.

At the present time the Council contemplates two things—propaganda to be sent out shortly and in considerable volume to indicate the values which exist in the field of the Arts in education, and the second, a rather comprehensive study of the problem of Art as it relates particularly to the secondary-school field from the standpoint of future trends in the high school itself as well as private schools, and in relation to the work of vocational guidance leading toward the profession of Art teaching, drawing, painting, and designing, etc. These two reports with a final meeting of members of the Council will practically exhaust the financial resources of this body and about that time I hope to justify its existence and appeal to some one of the Foundations for further continuance of its work.

It should be added that the faithful support of the members of the Council at considerable personal effort, not to say expense, has been splendid. While sales of the reports which have been published at nominal fees have brought in small returns, it is evident that financial support cannot be expected in this direction nor should this be necessary.

LIST OF EXHIBITORS

- American Art Clay Company, 4717 West 16th Street, Indianapolis.
American Crayon Company, Sandusky, Ohio.
Art Extension Press, Westport, Conn.
Binney & Smith, 41 E. 42nd Street, New York City
Brown Robertson Co., 424 Madison Ave., New York City.
Devoe & Raynolds Co., 825 W. Chicago Ave., Chicago.
Eberhard Faber Pencil Co., 37 Greenpoint Ave., New York City.
Esterbrook Pen Mfg. Co., Camden, New Jersey.
Graton & Knight, 356 Franklin St., Worcester, Mass.
International School of Art, 127 E. 55th St., New York City.
International Text Book Co., Scranton, Pa.
Keramic Studio, Syracuse, New York.
H. G. Kimball, Columbus, Ohio.
McGraw Hill Book Company, New York.
Mentzer-Bush Company, 2210 S. Park Ave., Chicago.
Milton Bradley Company, 401 N. Broad St., Philadelphia, Pa.
O-P Craft Co., 600 Hancock Street, Sandusky, Ohio.
Practical Drawing Co., 1315 S. Michigan Blvd, Chicago.
School Arts Magazine, Worcester, Mass.
H. J. Schwind, 423 Second Street, Elyria, Ohio.
Talens School Products Co., 320 E. 21st Street, Chicago.

